

APRIL, 1874.



\$1.50 a YEAR.

{ OFFICE, No. 9 NORTH STREET,
Near Baltimore St.

COTTON PLANTING OF '74.

HORNER'S MARYLAND SUPER-PHOSPHATE,

Prepared especially for COTTON from most concentrated materials.

HORNER'S MARYLAND, for Cotton-growing States, is composed of the following ingredients:

Best Peruvian Guano,	750 lbs.
Bone Dust and Concentrated Animal Matter,	1 100 "
Muriate of Potash,	150 " 2 000 lbs.

45 628 of Bone Phosphate,
17. Immediately Soluble,
4.50 Ammonia.

Fine and dry and in best Chemical and Mechanical condition of any other Fertilizer made, at home or abroad. EXCELLENT DRILLING ORDER, ETC.

\$50 per ton, in bags.

JOSHUA HORNER, Jr., Baltimore, Md.

BONE DUST AND BONE MEAL.

From Slaughter-House Bones. 25 years the Standard for Purity and Excellence.

Prof. Tonry and Prof. Wilson render the following analyses of my Bone Dust:

Moisture.	7.52
Organic Matter and Carbonic Acid,	29.94
Lime,	30.47
Phosphoric Acid,	29.16
Bone Phosphate of Lime,	59.63
Insoluble Residue,	2.90
Ammonia,	3.49

WILLIAM P. TONRY, Analytical Chemist.

CHEMICAL LABORATORY OF P. B. WILSON,

No. 32 SECOND STREET.

BALTIMORE, JULY 30TH, 1873.

JOSHUA HORNER, Jr.

Dear Sir—The following is the result of analysis of a sample of your Bone Dust, drawn by myself from a lot of 7 tons lying in your warehouse:

Moisture. (deter. at 212° F.)	3.74 per cent.
Organic Matter,	40.12 "
Containing—Nitrogen 4.0%; Ammonia 4.95.	
Inorganic Matter,	56.14 "
Containing Phosphoric Acid,	24.52 per cent.
Containing Bone Phosphate of Lime,	53.52 "
Insoluble Matter,	2.51 "

This is the best sample of BONE DUST I can find in the market, and call your especial attention to the large percentages of valuable material for the improvement of the soil, and to the small percentages of moisture and insoluble matter.

Respectfully, etc.,

P. B. WILSON, Analytical and Consulting Chemist.

Prepared for Drilling, and packed in Bags, 167 lbs. each, at \$45 per ton.

If upon the most searching analysis, any admixture or adulteration whatever be found in my Bone Dust, I forfeit the entire price.

My reputation of twenty-five years standing for pure and unexcelled manufactures, precludes the necessity of publishing certificates, besides which, the consumer has to depend upon the character of the manufacturer, rather than upon the merits of any particular issue of Fertilizer, as unprincipled parties may manufacture a good article for the purpose of obtaining Certificates, and the next year fabricate an entirely worthless article.

Respectfully,

JOSHUA HORNER, Jr.

54 S. Gay St., Baltimore.

No. 1 Peruvian Guano and Chemicals for Fertilizing purposes
constantly on hand.

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PUBLISHED BY SAML. SANDS & SON, BALTIMORE, MD.

VOL. III.—No. 4.]

APRIL, 1874.

[NEW SERIES.

Horticulture.

Variation in the Season of Ripening of Peaches—its cause and its remedy.

[The communication below needs no preface from us to commend it to the attention of our readers. The subject is one coming home to every grower of peaches for market. The fact of the gradual lessening and the final disappearance of the intervals between the ripening of kinds planted to succeed each other, is one which has become apparent to all our cultivators, and the evil has been very seriously felt for years,—never perhaps having occasioned so much inconvenience and loss as in the year 1872. Then almost all differences of season appeared obliterated, and varieties whose period of ripening usually extended over at last three weeks time, seemed to come in together.

We are glad so intelligent an observer and so experienced and extensive a peach grower as Col. Wilkins has taken up the consideration of this matter. There is, we presume, no point in the cultivation of this delicious fruit, and now staple crop, that has escaped his close examination, and the fact, heretofore alluded to in these pages, that he is probably the most extensive grower of it in the world, gives his warnings and suggestions a weight and influence of the highest importance. Yet such is the public spirit and liberality of our correspondent, that we are sure he would be as well pleased to find proposed some "surer remedy" than his own suggestion, as he is prompt to offer it for the benefit of his brother orchardists.—*Eds. A. Far.*]

Editors of the American Farmer:

In the January number of *The American Farmer*, Mr. Kerr, of Denton, calls the attention of your numerous readers to a very important Pomological fact, the "Variation in the season of

ripening of peaches." That there is a change, is recognised by all orchardists. Varieties, that succeeded each other in regular order, now ripen at the same time, thus increasing the labor of the orchardist, and lessening his profits; overstocking the markets, at times, when there is really no excess of crop, by forcing into market within three or four days, fruit that should have occupied the time of the grower for ten days or more. Other changes have also occurred within my knowledge of Peach culture, on this Peninsula. Some of the most choice and productive market varieties, after a series of years of profitable culture, have been abandoned because of their becoming either unproductive, or so tender as not to bear transportation. Even that old favorite Maryland Peach, the Late Heath Cling, that every man of threescore years in the State, remembers to have picked from the tree after the October election, has been brought forward as early as the middle of September. How these important changes are to be accounted for, and how to guard against others of like kind, are questions of serious import to the orchardist, and if cautious and wise measures are not adopted to answer them and arrest this evil, the injury to this favorite fruit of our country, may be most serious in its consequences.

Mr. Kerr is no doubt correct, when he attributes this variation to the indiscriminate use of seed, and buds, by the nurserymen. I was in hopes that he would have followed up this subject, as I think it one of vital importance to our fruit-growing interest. The nurserymen, who have made a specialty of growing Peach trees, will I think, as a class, take rank with their profession in any of its departments; they use extraordinary means to secure the best specimens, exercise great care and diligence to keep their grounds free from all taint of disease, and their varieties true to their names; stimulating their trees to a healthy growth, by the best appliances known to their art; and yet, in my opinion, and I believe most orchardists who have thought about the matter will agree with me, they are exceedingly reprehensible for the manner in which they propagate the stocks for their nursery trees. They ignore the maxim that should govern the Pomologist, in all his operations: "*If you desire the greatest growth, duration*

and development in any fruit, choose only a stock of a closely similar nature to the graft."

With stocks thus selected, no change in character or quality can occur, but what close similarity can be found in the little weak growing Hog Peach, of Eastern shore of Virginia, to the luscious and strong-growing Melocotons, Mignonnes, and Payles, that we desire to retain in all their original purity? The time-honored usage of the nurserymen, (I do not think it entitled to any other honor,) is to have seed of natural fruit, to produce their stocks.

They all profess to find these seed, and say their supplies come from the Eastern shore of Virginia, these seed all being small free stones. Now, Messrs. Editors, being familiar with that part of our Peninsula, as well as having some knowledge of the great quantity of seed annually used, I will venture to say, that there are ten times as many bushels of such seed sold as coming from that locality, as there are bushels of natural peaches grown there; and if they do not get the seed of natural fruit, they get those that look the most like them, and which I have no doubt are just as good. They are all from *poor light soil*; none of them from fruit of any *intrinsic merit*; and most of them from trees that make a *weak* or willow-like growth of wood, forming a stock entirely unfit to bear the crowns for such fruit as we desire to have in our orchards.

Can we hope, with stocks like these, to perpetuate by grafting the identity of all our choice varieties? Can we with impunity continue to graft a strong-growing, luscious late peach upon a worthless, weak-growing, early one, or the converse of this? I fear it has too long been thought we could, and that some of our most highly prized varieties have already undergone such a "change as must always be regretted. Lindley says, "All seed will not equally produce vigorous seedlings, and the vigor of the plant will correspond with that of the *seed* from which it sprang." We know that certain peculiarities, produced by disease, can be propagated by grafting, as in the case of variegated foliage.

The Nectarine is a well-established proof of how peculiarly constant the peach tree is to any constitutional variation, it being only an accidental variety of the Peach; yet it is continually reproduced with smooth skin, from the seed, and is still known in Northern India as the smooth peach. Downing says, "that poor soils will produce debility in any fruit, is too evident to need illustration." With these facts before us, can we doubt for one moment, that these changes in the peculiar characteristics of some of our best Peaches have been produced by an enfeeblement of constitution, engendered by taking *seed* from the poor sandy soils of the Eastern shore of Virginia, or from the grossly careless manner in which seed are selected? But, it may be said by nurserymen, in objection to these views, that we have been propagating in this way for a great many years, furnishing you with healthy trees, and no fault has been found until recently. The answer to this is, the debility produced in a single generation of trees, or even in half a dozen generations, might have been almost imperceptible, but this same bad management has been going on over the whole country, ever since the practice of planting large

orchards was begun, probably for more than half a century, and it is now developing consequences of a most serious nature. It is this constant indiscriminate budding upon stocks, from these seed, getting your buds each year from the nursery, planted and budded the year previous in the same way,—thus not only perpetuating, but *cultivating*, any constitutional peculiarity or idiosyncrasy that may have been engendered on a variety, by the use of an improper stock originally,—that has wrought the evil.

I think a change has also taken place in the *quality* of some of our old and most esteemed varieties. I fancy that I know a number of kinds that do not seem to me to be as good as they used to be; this may be one of the infirmities of age, though quite a number of friends much my juniors, are laboring under the same impression. I firmly believe it is this indiscriminate use of seed for stocks, that has spoiled the Hale's Early. It had, at first, qualities characteristic of a good peach, and possibly with careful culture, would have become a valuable variety; but being a hybrid, and near its origin, it could not bear this careless management. I know, that the first few trees of this variety raised by Mr. Isaac Pullen, of Hightstown, N. J., from the original stock, were infinitely superior to those raised by him at any time after that first season, and no one who knew Mr. Pullen would for one moment question his integrity, intelligence, or care, for he deservedly occupied a high position in his profession. The error was in the system. I have frequently thought, that I could see in this peach the influence of the stock, from stock seed. We have the same thing to fear with the Beatrice.

Now, Messrs. Editors, to bring my tiresome communication to a close, and to come to the point to which I wish to direct the attention of all peach growers, I believe that the health and success of our orchards depend as much upon the seed from which our stocks are raised, as they do upon the health of the trees from which the buds for inoculation are taken. They should both be healthy and vigorous, to make good trees. Now all our buds are taken from budded trees; if it be safe for the health of the trees to use such buds, why should it not be equally safe to use the seed from healthy budded fruit? That it is perfectly safe to do so, I have proved in my own experience. The stocks for the first orchard that I ever planted were from seed from budded trees. I bought the seed of a canning establishment, that used none but first-class fruit, of varieties running from Early York to Crawford's Late, and the stocks from these seed were used in budding the ordinary market varieties then in cultivation,—the buds being taken from bearing trees. This orchard was the best that I have ever had; the trees were remarkable for size, and health, as well as for the quality of the fruit.

All of my other orchards have been purchased of nurserymen, who have made a specialty of growing peach trees. Hereafter I shall adopt the only remedy that suggests itself to my mind as corrective of the evil entailed on us by previous bad management, and that is, to "*choose only a stock of a closely similar nature to the graft.*" I

shall use for my own planting, the seed from healthy budded trees, of the *same variety* that I desire to *plant*, and shall bud each *variety* with buds from choice specimen trees of the *same kind of fruit*;—Early York, upon Early York, and Smock upon Smock, and by this means I hope to recover some of the essential qualities that have been lost, in some varieties. This I know is contrary to the generally received notions of nurserymen and orchardists, but changes have taken place in our fruit, and we know not what other changes may await us. We seem to be running into shoal water, and, if there is not a change of course, I fear that we shall soon be aground. I shall be glad to know that some orchardists or nurserymen have, or can, suggest a surer remedy.

EDWD. WILKINS.

Riverside, Md., March 4th, 1874.

New Varieties of Fruit Again.

To the Editors of the American Farmer:

In my last letter upon this subject, a few only of the "*noisy*" new kinds of apples and peaches were alluded to, the latter occupying more space than was intended. But when you say *Peach* to an "Eastern Shoreman," you are striking "*ile*," so far as a subject for conversation goes; and the fact that the peach interest is *one* of the heaviest of the Peninsula, will, I think, excuse a little enthusiasm amongst us on that point. But to proceed with my text:—it may be said that pears are receiving due attention by progressive pomologists, and whilst our country is somewhat behind in bringing out improved varieties of *this* fruit, we can justly lay claim to leadership of the world in cherries. It being generally conceded that the fine foreign varieties of the plum cannot be grown with profit here, we have now as a substitute a number of varieties of the Chickasaw family, to destroy which that abominable curio finds it too difficult a task, and slides off sulkily to vent his "*s spite*" on Hale's Early peaches.—Among the new varieties of American plums, the Wild Goose, as yet, stands highest in favor,—perhaps because more thoroughly tested than the Miner, Langdon, Newman, De Casadene, and others. A few years more will likely elevate all of them in the estimation of fruit-growers. A little more time will also give us the verdict of the people upon the "Utah hybrid Cherries" or *dwarf* plums,—a fruit recently introduced to public notice by an enterprising nursery firm of Ohio! For apricots, nectarines and quinces, we "await further developments." But, turning to grapes, what cannot be said relative to meritorious new varieties? If there is not sufficient room in this department for the amateur, or "any other man," to gratify the most extravagant desire, surely the chance is bad in other branches of fruit-growing. A fine-sized, hardy, productive, vigorous, fine-flavored, quite early grape is the *desideratum*. Worden's Seedling is *said* to be earlier and better than Hartford or Concord.—What an item to those who grow grapes for market,—(if so,) what an item!! Rogers, Arnold and Underhill have each done great service by their untiring zeal to improve the grape; but it seems that "the grape for the million" five years back is not the same grape to-day. Either the ciphers in that million *of that* grape, is gradually yielding

to the high modern pressure of progressive horticulture. Skipping numerous very valuable (?) new varieties of grapes, I will conclude my letter by noticing very briefly the progress in raspberries. From the Philadelphia and the Clark for red berries, we are delivered by the introduction of the Herstine and Brandywine,—the latter leading in popularity with shippers. How long it will keep up to its present standard in public favor, is *only* a question of time; for already the claim is being heralded that its superior is "for sale," and I trust it is so,—for while the Brandywine excels the Philadelphia in shipping qualities, the plants are inclined to multiply faster than is desirable in a *good* market raspberry.

More anon, from yours truly, J. W. KERR.

Planting Peach Trees Again—The Finale.

To the Editors of the American Farmer:

The heavy demands upon the columns of your March No., having crowded out my reply to the communications of your correspondents, Mr. Kerr, and Mr. Massey, which I have laid aside, I will give them but a passing notice, so as to leave me room to reply to the more important communication of Mr. Fitz in your March No.

To Mr. Kerr I have only to say, that having "*pitched in*" "*the deep hole*," he seeks his way out by broad unsupported assertions, which amount to just nothing at all, to the point at issue. He arrogates to himself the *knowledge*, that my system of planting Peach trees 18 inches deep, in holes 3 feet diameter, is "*pernicious to the interests of fruit growers*." *Never having seen my trees*, I am puzzled to know how he come by his knowledge. If he has it intuitively, it is a gift of nature, and therefore he is not entitled to any credit for it, but if he *acquired it by study*, I would exclaim at the top of my feeble voice, "*in Mark Twain style*," that such a MAN, like his isolated trees,—deserves—a—great—deal—of—credit !!

To Mr. Massey, should be awarded the degree of merit for his undoubted knowledge of various kinds, relative qualities, and the proper cultivation of Tomatoes. In my opinion he knows vastly more about Tomatoes, than he knows about the proper way to plant Peach trees.

Now for the communication of Mr. Fitz, which I will review *seriatim*, as briefly as I can.

First, he says that I still insist on expending much "*horticultural sweat*," in digging my deep holes for Peach trees. I answer, *that is exactly true*. Second, he says one thing is *certain*, I will head off the Peach grub. In this I am sorry to say he is *entirely mistaken*; for I have to fight the Peach grub every year. Third, he asks, "why did not some of the fathers gouge thus deeply into the bosom of mother earth, and prove the unmistakable utility of the *deep mode*?" To this grave question, I am left to the mercy of conjecture, and I answer, that as I suppose it was because "*The Fathers*" were lazy fellows, and were unwilling to expend the necessary "*horticultural sweat*," to dig holes three feet diameter, and eighteen inches deep. He continues and says, (ironically I suppose,) that "*the deep roots are at once put in their proper place at the beginning*," whether this is said ironically or not, it is *exactly the truth*; and I do not believe, as he

supposes is the case, the collateral or horizontal bottom roots strive "to get up to forage ground," for thin I do certainly know, that collateral roots spring out from the stems above the original roots; which I can prove to the satisfaction of any one who will take the trouble to examine my five years old trees; and these collateral roots that sprung out above the original roots, give to the support of the tree, a double set of roots; and this with the fact, (I deal largely in facts) that the lowermost roots are out of the reach of drought, is the reason that my trees grow more luxuriantly, than any trees I have ever seen, that were planted in accordance with the practice of Mr. Fitz, and his two or three hundred years old predecessors. Come and see them, Mr. Fitz!

Fourth, my respected friend says that in your last (Feby.) number, "Mr. Kerr" has given this *deep hole* theory, an airing, in a few words, that sets this matter, he thinks, in its proper light. To this I reply, that Mr. Kerr, like Mr. Fitz, deals largely in speculating on theories, and unsupported broad assertions, without producing the *shadow of a fact*, to controvert what they have sneeringly chosen to call the "*deep hole*" system of planting Peach trees. Fifth, he says "in the question concerning his trees I omitted to give his brief description of the soil, which he put 15 or 20 inches deep around the stems of his Mayduke cherry and Peach trees. To which I answer, that it cannot make any material difference, as to the *kind of soil* he put around the stems of his trees, provided it contained no mineral, or other substance, that would injure the trees; it was only necessary to give them, as he did, a sufficiency of earth, to take them out of the condition of the other trees in the orchard, which he has told us, were almost dying with thirst; thus relieved from a dying condition, by the fall, were at least twice as large as their neighbors set the same year."

Sixth. The 350 trees of five years old, are from the nursery of R. Halliday & Son, one mile west of Balti.; of the 403 trees planted in April, 1872, 268 are from the nursery of R. Cromwell, one mile south of Balti., 154 are from my own nursery; in taking them up I stood by and had it done more carefully than is the practice of "lazy nurserymen;" they were planted side by side with the trees from the nursery of Mr. Cromwell, and there is not now any perceptible difference in favor of my own trees; so that after all, "*the deep hole*" is the secret of the great success of my trees. Mr. Fitz must surely, to some extent, "shoot flying," and write at random without the documents before him; this I infer from his remark that "in my deep tree planting, the exact *modus operandi* is not given." Now I take it for granted that he must have read my communication, published in your Nov. No., on page 408, giving a minute description of the *modus operandi* of my deep tree planting, and it was there, and there only, most undoubtedly, he got his idea, that I put "*hillocks*" around my trees. I regret that he has said, he would like to know, whether or not I intend acceding to the proposition of friend "Peter." I cannot make him a more appropriate reply, than to ask him if he takes me to be so silly, as to take any notice of so absurd a proposition? If we should have a wet season and Mr. Fitz shall honor me with a

visit, expecting to see "*a small lot of dry materials, ready for a brush fire*" on my Peach trees, he will most certainly be disappointed, for I am more than doubly sure, it would take a small *Noah's flood* to drown my trees.

It is not my practice or my inclination to indulge in speculating upon theories, but I will hazard the opinion that the trees of Mr. Fitz planted in 1871, will not compare with my trees planted in 1872, in circumference of the stems, or in fruit-bearing wood; but being a year older, will probably bear more fruit, as trees in their third year bear little fruit at best, and I say again, measure your trees, Mr. Fitz, and let us have the exact circumference of their stems, and their age.

Mr. F. has endorsed Mr. Kerr, in approving terms, and virtually endorsed his "friend Peter;" I will put the three with Mr. Massy and his "Eastern Shore" in the same basket, and say to them, one and all, they may *sneer* at my system, and may "*bark at the hole*," to their hearts content for all I care. I will repeat that in all I have written upon the subject, I have confined myself strictly to the statement of facts in relation to my own trees.

With all the wisdom of these gentlemen, it seems to me there is one important thing they do not know, that FACTS are as stubborn things as *Jack Asses*, and should not be meddled with except by those who know how to handle them, and will handle them FAIRLY.

I trust this may end the controversy between these gentlemen and myself upon the "*deep hole*" system of planting Peach trees, but if they shall choose to keep up the fire, I ask no odds of them, individually or collectively. "Truth is mighty and will prevail." Whether this shall be our final parting or not, I will avail of an old man's privilege, and offer these gentlemen, for their consideration, this small piece of an old man's advice. When you see a new system advanced, which is in conflict with your own opinions, in agriculture, horticulture, or pomology, from a source entitled to decent respect and consideration, do not push yourselves forward in efforts to put it down, without knowing exactly and certainly what you are doing; for by trying to be funny and witty in *sneering* at it, and *ridiculing* it, you may possibly find that in the end you have been manufacturing yourselves into fit subjects for *ridicule*. But investigate it, investigate it calmly and experiment upon it, and while doing so, "say but little and write nothing." If you shall find any good in it, profit by it. If in pursuing your investigations and experiments, you shall discover anything to PROVE that it is "pernicious" in its effects, first "be sure you are right," and then, and not until then, publish it, for the benefit of all the world and the rest of mankind.

Balto, Co., Md., March, 1874.

L. W. G.

[Our correspondent does injustice to the other participants in this discussion in saying they pushed themselves forward to engage in it. The reverse is the fact, since upon L. W. G.'s attacking the position taken by us upon this subject, we expressly invited an expression of opinion from all whose experience qualified them to

speak. He, however, as all men of his age are likely to be, is touchy when ridicule is supposed to be intended, and hence his ire towards his opponents, who, in justice to them we would add, were not aware that their remarks were intended for an octogenarian. Here this controversy must end.—*Ed. A. Far.*]

Packing Vegetables for Market.

Messrs. Editors American Farmer:

Our earliest products are of the simplest to harvest and market. The season being favorable, and little need be said as to the treatment of them save that they should generally be gathered when dry if possible, and immediately before being marketed, hauled with care and packed in well ventilated packages, not too large, and of a lightly appearance.

LETTUCE or SPINACH may be gathered when wet; if packed in very open boxes, they will keep all the better, but if in too close packages are liable to heat.

SHALLOTS, RADISHES, &c., should be tied in neat, uniform bunches, and transported in open or slatted packages.

ASPARAGUS.—Beware of too deep and long-continued cutting, as you spoil it for this year by the former and for next year by the latter. It should be cut in the morning. Tie your bunches twenty to thirty shoots in each, arranging them as nearly the same length as possible, using bass matting or some other soft and strong material for tying; bring the heads of your bunch all on a level and then cut the bottom ends off true. A little practice will enable one to bunch and tie them neatly and rapidly. Then pack them in a slatted box or open crate.

RHUBARB OR PIE PLANT.—Pull carefully, wash, arrange in bunches of uniform length, tie with bass matting at each end and cut off the leaves, leaving a half inch of the leaf to appear on the end of the bunch. Each bunch should be of equal weight,—the first ones of the season two pounds, later they may reduce. Pack in open crates.

PEA.—Henderson says: "If you have a large crop it is necessary to get a large number of hands to pick at the time they are marketed. The variation in one day in the market is not unusually from two dollars to fifty cents per bushel, which shows the vast importance of an early crop. From the soft condition in which it is required to be gathered, it is a vegetable not very manageable to ship, and the packages, which should be of latticed boxes or baskets, should never exceed the capacity of a bushel when shipped from distances requiring from two to three days in the transit. But even this expense and care is well repaid by the high rates for which the first lots are sold." The great mistake made by growers is in allowing their peas to mature too much. Pick them before they have fully filled; you will gain in price paid for earliness and a tender pea more than you lose in bulk. Then it is imperative that they should be shipped in a well ventilated package and not too large a one. The Clifton pea box or Georgia

ventilated basket or half barrel are either of them everything that could be desired for this purpose, and are cheap.

STRAWBERRIES.—Every strawberry grower knows that he should put straw under his vines if he care to keep the sand and earth from them, and that he must pick them as far as possible in the cool of the day, when dry, and as soon as ripe, but not before—one over-ripe berry will spoil the whole basket—and that he must pick them from the vine into the basket or box in which they are to be sold, and sorted as far as possible in picking. But a word as to my experience of the best baskets and boxes may not be amiss. The "American quart basket," or the "Delaware quart basket," or "Star pints," I find the best, and they are cheap, costing not more than two to two and a half cents each; are neat, light, ventilated and occupy the best possible space, and can be repeatedly used. There is a paper basket which is much cheaper, not costing more than three-quarters of a cent each, not quite so neat in appearance but equally light and economical of space, and can be several times used, but they are cheap enough to go with the berries—a great advantage. For the carrying box or crate in which to transport the quart and pint baskets, the "Clifton crate" is the best, being the lightest, best ventilated, strong and about half the cost of any other that I know—a crate holding from thirty-two to sixty baskets costing only seventy-five cents—making for a crate containing thirty-two American quart baskets one dollar and thirty-nine cents; or, a crate containing thirty-two paper baskets, ninety cents.

HENDERSON also says, CHAPTER XIV, PACKING OF VEGETABLES FOR SHIPPING.—"When the temperature is high, provision must be made in the package for the admission of air to prevent the articles from heating." * "As early vegetables are always shipped from a warm climate to a colder one, at a season which, of course, must be warm to mature them, open-work baskets or slatted boxes must be used. If barrels are used care must be taken that openings be made plentifully in the sides, so that air may be admitted. For distances requiring a delay of more than forty-eight hours in the transit, for most articles barrels are too large; boxes or baskets, one-fourth the capacity of a flour barrel, being safe."

We in our neighborhood have found the "Clifton crate," which is recommended in the February number of the *Farmer*, meet our wants admirably for both fruits and vegetables, being made more or less open, and adapted in size, form and stoutness to the various uses for which they are desired.

The new "Georgia ventilated barrel," which I have seen but had no opportunity to use, is said to be the thing where the barrel form is preferred.

II.

JERSEYS IN A NEW ROLE.—The *Mark Lane Express* says a Jersey steer, twenty months old, sold at auction, at a West Herts show, to a butcher, for £35 10s. (\$172.50.) The sire of this steer weighed when dressed 2,310 lbs., and carried an immense amount of fat.

The Vineyard.

Grape Vines—Wine Making.

BY ABRAHAM PARKHURST, ESQ., OF AIKEN, S. C.

[Read before the Maryland State Agricultural Society, on the 5th of February, 1874.]

The cultivation of the grape vine and the manufacture of wine from the juice thereof, have been in all ages and in all countries an important and lucrative branch of industry. Although the Falernian and other wines of Italy sung of by the Roman poet, Horace, more than two thousand years ago, have lost their reputation, and have yielded the palm to the wines of France, Spain, Portugal and Madeira, yet wines still constitute the chief drink of the Italians.

CULTIVATION.—The mode of cultivating and training the vine varies in different countries; for while the French generally adopt the method of planting grape vines in rows, eight feet apart, and the vines six to eight feet distant in the rows, the Italians have followed the method of planting mulberry trees in rows, with a vine between each mulberry tree, the vine trained to run up the mulberry trees, and the bearing branches to hang in festoons from the trees. The same plan is pursued on the west coast of the small Island of Madeira, with this difference: instead of mulberry trees, walnut trees are planted. As the ancient Roman method of training vines is still pursued in Italy, and as experiments made in this country clearly demonstrate, that grape vines thus trained not only partially exempt the fruit from rot and decay, but shelter the vines from the damaging and destructive effects of late frosts. As regards the State of Maryland, the price of labor would not render silk cultivation profitable, and therefore walnut trees, from the proximity of two such large cities as Baltimore and Washington, would present greater advantages, and serve the double purpose of yielding fruit and a timber whose value is sure to be considerably enhanced by the increasing density of population.

PLANTING AND PRUNING THE VINES.—With these preliminary observations, and assuming that most persons intending to follow the culture of the grape vine will plant cuttings rather than incur the expense of buying roots from a nursery, the writer would remark that he has found by experiment that cuttings with three or four eyes succeed the best,—two eyes being inserted in the ground and the other immediately above the surface of the earth. If planted in rich ground, they will bear fruit the third year. Summer pruning should be pursued by directing the strength of the vine to the support of two main stems, lopping off the others, and tying these two main stems to two sticks or stakes, leaving in the winter (when pruning them) one main stem to bear fruit the following year, and cutting the other stems down to within two eyes of the ground. The stem that bore fruit cut down the following winter, leaving the one decapitated previously to be the fruit bearer. This method is pursued alternately for years, always taking the precaution when thus cutting them down alternately to leave each time one new eye for

the bud to start from. The writer tried the experiment of leaving twenty grape vines unpruned for the year. Innumerable small twigs projected from these old branches, but they produced no fruit. Summer pruning increases the size of the bunches of the grapes, and this is effected by lopping off the wood two eyes from the spot whence the bunch of grapes proceeded.

When grape vines are trained with one main stem, and lateral branches from this main stem are left for fruit bearers, it is customary to leave two or three eyes, and as the buds from these three eyes grow, pull off two and leave only one to concentrate the strength and bear the fruit. This is usually termed the trellis method, and is generally followed in Spain and Portugal.

MARYLAND AS A GRAPE GROWING TERRITORY.—Experience, experiment and observation will soon mark out for any man the best methods of pruning and cultivating the vine, and as the subject is one of paramount interest to the country, when viewed in connection with intoxication, it may well deserve the attention of the philanthropist, the patriot and the agriculturist. The fact stands prominently before any man who has traveled in foreign countries, that in those countries where wine is the chief beverage, drunkenness is comparatively unknown. Maryland, from its sloping hills, undulating lands and stony substratum, appears admirably adapted for the cultivation of the vine. The Italians have a saying that the more stony the ground the sweeter the grape, and in many parts of Maryland the roots of the vines would penetrate between and beneath the small stones, and at the same time the roots would be protected from standing water, for it is generally considered essential to the welfare of grape vines that no water should lodge at the roots; hence, the practice of planting on hill sides, to obviate this deteriorating influence.

WINE-MAKING.—The chief art of wine-making consists in attending to the fermentation. The grapes should be gathered on a dry day, and all unripe grapes picked off. Sixteen pounds of grapes are generally estimated to yield one gallon wine, but as some grapes contain much more juice than others, this estimate will vary accordingly. Before the grapes are mashed mix one pound of sugar with the sixteen pounds, and then mash them either with the hand or round wooden rollers, or a glass bottle. Put the mashed grapes into a tub, taking care that the tub should be two-thirds full, and then cover with a blanket. Note the time when the mashed grapes are put into the tub, and place in the centre of the mashed grapes a stick, notching the exact height of the grapes in the tub. The mashed grapes will soon begin to ferment, and will probably reach the highest point of fermentation in thirty or thirty-six hours. Observe every two or three hours the progress of fermentation, and note the exact time it takes from the moment the grapes are put into the tub to reach the highest point, and then allow the same space of time for the fermenting liquid to subside. About three days will generally intervene from the time the mashed grapes are put into the tub to the time the wine is drawn off. Near the bottom of the said tub there should be a hole for a faucet or tap, through which the wine may be

drawn off. It will probably come from the tub quite clear; but in case it should not do so, press the wine through a flannel bag. Have a hogshead, barrel or keg thoroughly cleansed with boiling water or fumigated with brimstone, into which put the wine, taking care that the vessel should be quite full, and if there is not wine enough to fill it, the vacuum should be filled with water. The fermentation of the wine after being put into the cask, will almost at once commence, and by applying the ear to the cask a strong hissing noise will be heard, which in the course of a month will gradually diminish, and in two months the hissing sound will scarcely be audible. As the fermentation goes on, the wine diminishes in bulk, and every third day this vacuum should be filled up with wine. This process of filling up the cask should be continued every week for about two months, or until the fermentation has altogether ceased. A bag of sand placed over the bung-hole will exclude the air. After the fermentation has ceased, and it is no longer necessary to fill up the vacuum created thereby, the bung may be put in, or paper pasted over the bung-hole will exclude the air. After the bung is put in, a vent-hole is necessary, which should be opened once a week to let off the superfluous gas, otherwise this confined gas might possibly burst the cask; but if paper was pasted over the bung-hole the gas would escape first through such an aperture.

On a clear frosty day in December the wine should be drawn off, the cask cleaned out and the wine again returned to it. If the wine is not clear, isinglass dissolved in wine and mixed and stirred about in the the cask will purify it; or, the whites of eggs and egg-shells broken and beaten up will answer the same purpose. The wine undergoes a second fermentation in March or in the spring. The sweetness acquired by putting two pounds of sugar to the gallon will, after the second fermentation, in a great measure disappear, and as sugar turns to alcohol through the medium of wine fermentation, we may naturally draw the conclusion that two pounds of sugar to the gallon or sixteen pounds of grapes, will cause the wine to be better, stronger and more palatable. Our grapes in this country are deficient in saccharine matter; hence, mixing the sugar with the grapes before they are mashed remedies that defective quality, and gives a richness to the wines not attainable by the old method of mixing the sugar with the juice after mashing.

Decayed vegetable matter, bone dust and the trimmings of vines cut up into small pieces and buried near the roots, are considered the best manure for grape vines.

DEATH OF THE \$40,600 COW.—The celebrated cow which brought \$40,600 at Mr. Campbell's sale, last Fall, in N. Y., gave birth prematurely to a dead calf, and the cow also died at the same time. It will be remembered that the English purchaser after the sale determined not to send her across the water, and it was understood that his agent had exceeded his instructions in the purchase. Col. L. G. Morris, of Fordham, N. Y., bought her at about \$10,000 less than she had sold for at the public sale. The calf, if safely delivered, would have sold for \$5,000.

Baltimore Co. Farmers' Club.

The following Essay on "Lime and Clover as Fertilizers," was read at the monthly meeting of this club, held at the residence of Mr. John G. Booth, on the 4th of February, and ordered to be furnished to the *American Farmer* for publication. At the same meeting the subject for discussion for the occasion was, "What is the best time for planting and mode of culture for the corn crop?" which elicited quite an animated discussion, the opinion prevailing that of all the crops it requires the most thorough preparation of the ground before planting, and constant tillage after until ready to lay by.

The subjects of the essay are of vast importance, and it will doubtless be read with interest, and we give it a place in our pages with great pleasure.—*Eds. A. F.*

Lime and Clover as Fertilizers.

BY JAMES ATLEE, ESQ.

Experiment has fully demonstrated the beneficial effects of lime as a promoter of the growth of vegetation; but the results of its application have been as diversified as the circumstances and conditions of the soil to which it has been applied, and many fail to realize their expectations, either from a lack of proper application or from the condition of the soil being such as to admit of its only dispensing part of its properties as a fertilizing agent. We find from analysis that lime, in some of its combinations, forms a constituent part of nearly all plants, but varying much in quantity in different plants. By direct absorption, it is necessary to the perfect development of vegetation. Its chief office, however, is in its assimilating the properties already in the soil to the plant. Vegetation lives only on digested or decomposed food, in the form of liquids and gases. The soil may contain all the constituent elements of the crop intended to be raised, and yet they may not be in a condition to be appropriated. Most soils contain carbonates, sulphates and phosphates of potassium, sodium and magnesium, in combination with silica, in the form of earthy rock, feldspar, &c., but in such a condition as to be absorbed only as they are slowly decomposed by exposure to the gases of the atmosphere and the rays of the sun. Many of the manufactured fertilizers make a fair showing by analysis, and do contain the elements which should sustain the plant, and yet they may be in such combination as to prove inert, on account of their insolubility. This is one of the beneficial properties of lime. It breaks up these combinations and forms new compounds which are more soluble, and are thereby made available nourishment. This result of liming is more perceptible on land containing humus or vegetable mould, which is converted into plant food.

Under certain circumstances the use of lime may be detrimental. When brought into contact with ammoniated fertilizers it decomposes hydrochlorate of ammonia, setting the ammonia free, and thereby causing a loss of one of the most valuable stimulants of plant growth. It

also reduces a superphosphate of lime to a phosphate, thereby rendering it insoluble. Hence, we find superphosphates and ammoniated fertilizers do not act well on recently limed lands. We would not advise, therefore, the composting of lime with stable manure, hen manure, or other fertilizers rich in phosphates or ammonia. We have, nevertheless, an antidote for this trouble which should always be resorted to when loss is likely to ensue from this cause. Plaster (sulphate of lime) and salt (chloride of sodium) absorb the ammonia set free, and form sulphate of ammonia and hydrochlorate of ammonia, which are soluble and in condition to be returned by the rain for the use of the crop. It would be well to state in this connection that this is the real benefit to be derived from plaster, (which is but a different form of lime.) Not being of high value as a fertilizer in itself, but having an affinity for ammonia—which is very volatile and liable to be lost by evaporation—it lays hold upon it as it passes from the decomposing vegetation in the earth, and also absorbs that which has escaped, and is returned by the rains, and is thereby brought directly to the fountain from whence the plant draws its nourishment. I would advise, therefore, a more general use of plaster, or plaster and salt, to be sown on top of the ground, especially where ammoniated fertilizers have been used, also to be sown on barn-yards and in stables and chicken-houses, to save the ammonia which otherwise would escape.

A solution of copperas (sulphate of iron) will answer the same purpose applied to stables, and is one of the best disinfectants for cellars and out-houses.

But we derive other beneficial effects from liming. By breaking up these combinations in the soil it renders it more friable and easier penetrated by the atmosphere and warmed, and in this condition it absorbs the moisture more readily, and is less liable to suffer from drought. From these thoughts we would conclude: First—That but a small quantity of lime is requisite, independent of its action upon and in conjunction with other constituents in the soil. Second—That lime applied to land destitute of humus or vegetable matter makes available the inert properties in the soil, acting as a stimulant to the crop, and leaves the land in a depleted condition. Third—That only in combination with the mineral constituents of the soil that are available, and such vegetable and animal matter as may be supplied, can its full benefit be secured.

This brings us to the consideration of the second point of our subject,—the action of lime upon and in connection with clover as the best means of furnishing the requisites of a complete fertilizer. Of all plants none seem more dependent on lime than clover, and it will not grow on land destitute of lime. We find by analyzing the ash of clover that of its inorganic or earthy parts there is twenty-five per cent. of lime, twenty-seven of potash and soda, six of magnesia, three of chlorine, five of silica, twenty-five of carbonic acid, six of phosphoric acid and three per cent. of sulphuric acid.

Thus we see that lime, potash and soda predominate largely in the earthy part of clover. The carbonic acid is supplied by the atmosphere in abundance. From the peculiar habit of the

clover plant, it draws its nourishment from sources not available to other plants. Its fibrous and deep penetrating roots search for food to a depth not attainable by other plants, while its numerous and broad leaves drink in its organic constituents from the atmosphere, shading the ground from the decomposing rays of the sun, and concentrating near the surface a mass of those very elements needed for the succeeding crops, and in kind and quantity more than sufficient to supply their wants.

We thus have in the combination of these two fertilizers—the mineral and the vegetable—those very constituents requisite to the nourishment of the cereal crops, and to this end an all-wise Creator has so abundantly provided lime that it is supposed to comprise one-seventh of the crust of the earth. It remains for the tiller of the soil to utilize these resources so bountifully provided.

Tobacco Worms.

The Clarksville *Tobacco Leaf* publishes a paper upon this subject from the pen of Dr. W. D. Chambers, of Henderson, Ky., giving the result of his researches within the past ten years, of the natural history of the tobacco fly, and having experimented largely in the various methods of its destruction, by poisonous agents, he has come to the conclusion that much that has been published in newspapers upon this subject is entirely erroneous. The following is the result of his observations:

"Tobacco-worms, as other caterpillars, have three states of existence, viz: worm, chrysalis and butter-fly. The latter we term a tobacco fly. The worm is hatched from the egg of the fly in two or three days from the time of its deposit on leaf. When eight or ten days old it assumes a passive or drowsy state for three or four days and then throws off its old skin which has become dry and loose. By this change its dental arrangement is much improved, its powers of destroying greatly augmented, and it becomes full grown at the age of about twenty-eight days, in the meantime having well earned the reputation of the planter's most bitter enemy. The last few days of the worm's stay are passed in trips back and forth from plant to the ground, seeming loth to try the uncertain realities of such a habitation. Having finally entered the ground its last time, it descends to the depth of eight to twelve inches and usually rests with its head down. Thus is begun the second state of its existence, which period continues ten months, when it has undergone great change, now being incased in a hard shell with articulating rings in the centre, by which motion is secured. We now observe to what use the horn of the worm has been turned: it is no longer a seeming useless appendage, but has become hard and is shaped like the bit of an auger, by which the chrysalis is enabled to bore its way to the top of the ground, where its shell is thrown off, and thence begins the third, last, and we may well say the most enviable state of its life.

Tobacco-flies are divided into males and females, and present considerable variety in their

size and color; the females having shorter and thicker bodies, and their color not so sandy as the males: they suck the flower of various plants but manifest a partiality for those which have a strong odor, such as the gourd and Jamestown weed, as it is commonly called, but more properly *datura stramonium*. At the age of seven to fourteen days the female is ready to lay eggs, which are deposited on the plant of which we have traced the history. When tobacco is scarce or is wanting, the flies put their eggs upon some other plants, viz: the potato, (Irish,) tomato, horse-nettle, and black night-shade, all of which belong to the natural order *solanum*. About two or three weeks are spent in depositing the eggs, when the life of the fly terminates. It is thus seen that the life of the fly is about twenty-eight days or one month, the same as that of the worm; adding these to the period as a chrysalis, we have one year as the whole of its life. It is impossible, then, as has been asserted, for worms to change into flies and deposit eggs the same season. Actual experiment has proven the contrary, and nature is uniform in her laws. We now come to the most important part of our monograph, the different methods of preventing the multiplication or increase of tobacco-worms.

A large percentage of the worms that mature and go into the ground, do so after the tobacco crop has been cut and housed, and thus we readily see the advantage to be derived from digging up or turning under with the plow the stubble of the plant after the crop is cut; for this stubble puts forth sprouts or suckers, upon which immense numbers of worms feed and mature. Some years we have an early-frost which kills the suckers and obviates the necessity of destroying them as recommended. The next method of preventing an increase of worms which suggests itself is, the plowing of the land cultivated in tobacco the previous year, in the months of January or February, so as to turn up and expose the chrysalis to cold, freezing weather. Plowing the land immediately after the crop is cut would not prevent the worm returning to a new position in the ground; whereas, when the plowing is as late as before stated, the chrysalis is torpid, in a semi-changed condition and can not return to an abode underground. It is obvious, too, that spring plowing would not answer our purpose, unless the plowing were succeeded by a freeze. Poisoning the fly seems to be the most popular way in vogue within the past few years for preventing the ravages of tobacco-worms. Cobalt, arseniac acid and corrosive-sublimate are the poisons recommended. Strychnine would not be suitable, as the tobacco-fly has no spinal cord, only a nervous ganglion. The cobalt is most conveniently used by melting an ounce in a pint of water and adding half a pint of liquid honey. The bottle containing this should be kept out of the reach of children, as a number of cases of poisoning have occurred owing to negligence in this particular. An ounce vial, with a cork stopper, into which is inserted a small quill, is suitable for putting the poisonous solution in the stramonium flowers. The best time for doing this is every evening about sun-set. Two or three drops are sufficient for one blossom. Stramonium has a tubular blossom which opens about an hour before sunset and remains open

until after sunrise the next day, when it closes, withers and dies. Every evening there is an entirely new blossom. It is a mistaken notion that the cobalt kills the blossom. The fly sucks the poison by means of its long bill, which is nothing more than a hollow tongue, and is killed by excessive purgation. The time required to produce death depends upon the amount taken. I have often seen them killed by the poison in fifteen minutes.

One or two dozen stramonium plants should be set in a rich moist spot in the tobacco ground early in the season, say May or June. All others on the farm should be cut down, for the flies prefer to feed from the unmedicated blossoms. In order to work the destruction on the flies effectually, the planters throughout every neighborhood should use the cobalt as directed. Planters must not rely too exclusively upon this preventing them from finding worms on their tobacco; if they do they will not get enough of the poison to produce death the first dose and are apt to shun it afterward unless it be disguised by using another sweet instead of the honey.

W. D. CHAMBERS, M. D.
Henderson, Ky., January, 1874.

PARIS GREEN FOR COTTON WORMS.—*Its Effects on the Birds.*—A correspondent of *Phillips' Southern Farmer* says he had one hundred acres of cotton on swamp land that would have been ruined, but on the first appearance of the worms he put eight hands on mules with two gallon watering-pots, and had ten more hands and two wagons supplying them with water, poison, &c.

He went over his cotton twice, up one side of the row and down the other. Poision, labor and all cost about three hundred dollars, but saved him at least twenty bales of cotton. The field will now turn out, as near as he can see, sixty bales; whereas, if the worm had been allowed to have it, forty would not have been gotten. The experience of all, he says, that have used the poison has been that it should be applied, to realize the best effects, on the very first appearance of the worm, and before any show of damage has been made. He used the poison by putting to each canful of water half a tablespoonful of poison and three spoonfuls of flour, and stirring well. Without the flour it would not stick, and the only trouble was that the little lumps of flour would not all be broken up and would stop up the holes in the watering-cans. It was found necessary to wash the shoulders of the mules every night.

As a reverse to this, the *Farmer and Gardener* says, the results of the use of Paris green against the cotton caterpillars were satisfactory only where small fields were experimented upon, and the work of sprinkling the solution was thorough, and that upon large fields the experiment has proved of questionable profit as regards its cost, or the benefits received. One result, however, is to be deplored, in the large destruction of birds, which in many localities have died by the wholesale from eating the dead worms poisoned by the Paris green. This is regarded as a serious misfortune, as more damage will eventually occur to the cotton, as well as all other crops, from the

destruction of birds, than all the cotton worms can accomplish. This insect makes only periodical invasions, while other species of caterpillars are permanent nuisances, to rid us of whose presence birds are our best allies.

The Agricultural Report for December had a paper from Prof. Glover on this subject, from which it appears that the Department has received returns from seventy counties in response to inquiries as to effect of applications of Paris green or other arsenical compounds. At least four-fifths, he says, of all declare it is an effectual remedy, and that it is most approved where most generally used. The conclusions drawn from the reports made are about as follows:

Paris green, mixed with flour, in the proportion of 1 to 25 or 30 parts, is of utility and in many cases has saved the crops; and that failures have arisen from improper use, or spurious materials; that Paris green or arsenic used with water and sprinkled over the plants has been effective, but the water must be stirred at the time of using it, as the poison does not dissolve. The caution is given not to make the mixture too strong. When used as a powder the plants must be wet that it may adhere to the leaves, and as rains will wash the powder away it will have to be renewed after heavy showers. The application of the Paris green on the first appearance of the caterpillars is recommended, and as soon as possible also after the second crop of worms appears.

Mr. Glover says only a few cases of injury to man or beast have been observed and even some of these are not well authenticated. Caution is given that persons using the poison should be on the windward side when dusting or sprinkling the plants, and that stock be kept from the foliage. The Professor alludes to the complaints by planters of the indiscriminate slaughter of insectivorous birds, which are so useful in destroying the cotton-caterpillar, and concludes by reporting the experience of three of his correspondents who have driven flocks of turkeys into the cotton fields as is done in Maryland and Virginia in the tobacco fields, and who have found they quickly exterminate many of the worms.

Like all other seeds of the vegetable kingdom, it is important in planting the cotton crop to obtain good seed. In an account lately published in the *Farmer* of a large yield of cotton by a planter of Mississippi, he attributed his success in no inconsiderable degree to the seed he had planted, which was that so well known as the *Dickson*. The *Rural Carolinian* for March very justly remarks, that "In cotton culture it is the worst of bad management to plant inferior seed because it would cost something to buy the best, but, as we have repeatedly urged, every planter should by continual selection and high cultivation, make his own seed, and take pride in having the best. Begin with the *Dickson* seed, or any better sort, if there be any better, and improve upon that till you have something as much better than the *Dickson* as the *Dickson* is better

than the common. We are accustomed to boast of the perfection to which cotton culture has been brought in this country, and with some reason, but there is still room for improvement—something to learn by those not too wise in their own conceit to accept new truths. Only general rules for the culture of any crop can be given, when they are to be applied to various conditions of soil, climate and season. Experience must determine the exceptions, and god judgment guide the planter at every step."

The Emigrant Fields of North America.

[In accordance with our promise, we make some extracts from the letter of a correspondent of the *London Field*, who writes from Washington City—dated Nov. 5.]

THE CITY OF WASHINGTON.

Farming conditions in the neighborhood of Washington are peculiar and rather inviting. This city has a population of about 120,000, to a very large extent luxurious and wasteful livers, and its market is one of the best to be found in America. A very large proportion of the farmers and landholders on both sides of the Potomac are too much impoverished, too indolent, or too badly informed to reap one-half of the advantages that this near market offers them, and, in consequence, much of the produce consumed in Washington has to come from very considerable distances, notwithstanding the natural fertility of the soil.

The city is between the two recently slave states of Maryland and Virginia. About ninety years ago the site—which was then a wilderness, with aboriginal Indians occupying the neighborhood—was selected by Washington, and laid out under his directions. At that time the channel of the Potomac flowed close to the city, with a depth of about 30 feet. No other city on the whole Atlantic coast was better situated for the commerce of the future under such conditions as then prevailed; while its natural advantages, as a centre of manufactures, were superior to those of any other Atlantic port, Philadelphia not excepted. The falls of the Potomac are within the original limits of the district, and if utilized they would afford abundant and never-failing water power for a great number of large manufactures. A little higher up the valley are the quarries of limestone, and marble, and hydraulic cement. There are also beds of superior kaolin, terra cotta clay, and abundant materials for the manufacture of glass. Further up there are rich beds of iron, and further still we have the immense coal deposits of West Virginia, Maryland and Pennsylvania, through the midst of which the Potomac cuts its way from the mountains to the sea. Being at the head of the tide water of a very wide river, with high hills around it in almost every direction, the location is exceedingly beautiful, while the natural draining is excellent. There is plenty of pure water, and the climate is as healthy as it is mild and pleasant, epidemics of all description being almost unknown.

With these great natural advantages in its favor, it was also the particular pet of the Government and of the national Legislature. Washington had fondly anticipated a great future for the

city, which the nation named in his honor; and he caused its plan to be laid out on a scale of grandeur to be found nowhere else. Large reservations of land were retained by the Government in the most favorable locations for the sites of the various public buildings, which were generally constructed, after Grecian models, of a pure white marble, which in this climate is scarcely affected by the hand of time. These, as they have been extended or rebuilt to meet the increasing requirements of a rapidly growing nation, have afforded employment to large numbers of people; and yet until very recently it has seemed utterly impossible for the city to grow, except in just so far as the Government lavished the national funds upon it. It consisted almost entirely of the great Government hives, of a few parasitic caravansaries, and of a number of rows of irregular, straggling, squalid houses, along lines of streets so wide and so little used that no authority thought it worth while to incur the great expense of keeping them in tolerable order. The population was in round numbers 40,000 in 1850; it had increased to 60,000 in 1860, since which time it has rivalled the growth of the great Western cities, reaching about 110,000 in 1870, and bidding fair to number close upon 200,000 by the end of this decade. The grand plan of the city, its mingled magnificence and squalor, and its unfinished appearance, obtained for it the derisive appellation of the city of magnificent distances.

The writer proceeds to give the reasons, which he says Englishmen of ordinary intelligence will understand, (alluding to slavery,) why the city, with all its advantages, had not more rapidly increased in population and prosperity,—for, he adds, it combines in a pre-eminent degree the three elements of health, convenience and beauty.

But, from circumstances connected with the war, with the altered conditions of profitable cultivation, to which it is impossible that all Southern planters should adapt themselves, have so impoverished large numbers of those around Washington, as well as elsewhere, that they are ready to sell on lower terms than they could have obtained when the population of the city was 40,000 or 50,000, and comparatively stationary. These terms would generally prove very profitable to new-comers having capital and experience.

The hills and heights for a distance of eight or ten miles in every direction afford beautiful locations for villas and suburban mansions, but the soil is generally thin and poor, and at the average price of £5 to £6 per acre they would scarcely pay on the average (merely as farm land) as well as the less hilly districts a little further from the city. On the Marlboro' road, which is in excellent order, there is a farm of 250 acres, about twelve miles from Washington, five miles from a railway station, and seven from a steamboat landing. It is very good land, in fair condition, and the house thereon is worth about £1,000. The price for the whole is £3,000, on the usual terms of one-third down, and the balance in one, two and three years, at 6 per cent. It could probably be bought for cash at considerably less.

I am given to understand that a short advertisement for land in the county paper at Marl-

boro' would probably be answered by a hundred holders desirous of selling. There is an abundance of excellent land for sale in Prince George County at about £8 an acre, with improvements; average distance from Washington about fifteen miles. Portions of the country are very healthy, but other parts are more or less subject to fever and ague. In Anne Arundel County the prices average a little less, the land being scarcely so good on the whole, while a smaller proportion is subject to the influences of malaria. Calvert, St. Mary's and Charles Counties contain much excellent land, at from £4 or £5, with inferior improvements, to £8 or £10, or £12, where the improvements are very good."

Correspondence.

Agriculture of France.

Fat Cattle Show—Deep Plowing, its value—The Manure Question in France—An English Company in Paris manufacturing Poudrette—Nitrogen, Deodorizers, &c.

To the Editors of the American Farmer:

The first annual show of fat cattle since the war and the rinderpest has just been held in Paris. It was a success beyond expectation. Excepting in the case of calves, of which on the present occasion there were none, the entries corresponded with those of the year 1854, and were one-third less than in 1870. Two distinct facts have been developed by this exhibition: remarkable improvement in the breeds of cattle, notable crossings with the Durham race, and a tendency to secure the qualities of precocity and mean size. The end of all industry is profit, and there is a law, such land, such stock, that cannot be violated. It is a theory more seducing than accurate, in France at least, that the value of an animal is in proportion to its weight; climate and soil are agencies, however, that must be taken into account. Large-size, heavy stock, is passable in England, but not as a rule perhaps for France. For example, the butchers—class that farmers must listen to—prefer an ox 16 to 18 cwts., rather than one of 22 or 24 cwts. The former weight also, will command at least one franc more the hundred-weight. In the case where the soil is poor and pasture scanty, sheep are reared, and in time passed on to richer districts in the north and west to be fattened. The best sheep for the Paris market, which finds the readiest sale and highest price, is that which weighs only three-quarter hundred-weight. Legs of mutton, 20 lbs. in weight, and cutlets 1½ lbs., are not at all in demand. Beef, to make soup, is the chief flesh diet for the working classes; then pork; mutton rarely. Heavy joints of the latter can but be disposed of in hospitals, schools and barracks, where contract prices only are allowed. Hence, the precocity and food of animals must not only be considered, but also the exigencies of the butcher's customers. Thus the chief objection against Southdowns, is their weight. Three sheep, weighing each 4 hundred-weight, will realize one-third more in total price than a single sheep weighing 1½ hundred-weights. The Southdown has its advantages not the less, as it has

Maryland State Horticultural Society.

The adjourned meeting was held on 29th January, when the following gentlemen were elected Vice-Presidents for Baltimore county:

Ezra Whitman, Edward Kurtz, Gen. G. S. Brown. The State at large—J. H. McHenry, J. W. Garrett, A. Bowie Davis and Col. Edward Wilkins. The counties—Montgomery, H. C. Hallowell; Prince George's, General Samuel Jones; Queen Anne's, Hon. James T. Earle; St. Mary's, Hon. Benjamin G. Harris; Somerset, James U. Dennis; Talbot, Dr. John Miller; Washington, Dr. Harvey; Wicomico, Dr. Todd; Worcester, Hon. Judge Franklin; Allegany, Dr. Samuel Smith; Anne Arundel, Hon. W. H. Tuck; Baltimore, Charles J. Baker; Calvert, Hon. Judge Magruder; Caroline, J. W. Kerr; Carroll, Colonel Longwell; Cecil, J. A. J. Cresswell; Charles, Major W. B. Mathews; Dorchester, Daniel Henry; Frederick, Hon. Judge Marshall; Garrett, Patrick Hammill; Harford, Henry Fernandis; Howard, Hon. John Lee Carroll, and Kent, W. F. Massey.

The following letter from Wm. T. Walters, Esq., President elect, was then presented by the chair, and read:

BALTIMORE, January 28, 1874.

Mr. Ezra Whitman, Chairman:

Dear Sir—It is only through the press reports I have been made aware of my election as President of your newly organized Horticultural Society. Will you be good enough to convey to its members the personal gratification I feel at the compliment paid me, as well as my sincere regret at my being compelled to decline the position. I trust that you will not fail to count upon my co-operation in subordinate place in efforts to redeem our State and city from the reproach of being without a society capable of doing so much to cultivate general taste, by inspiring a love for the beautiful in nature. You will have no difficulty, I am sure, in selecting a chief officer greatly more capable than myself, and who will secure unanimity of support.

Very respectfully, your obedient servant,

W. T. WALTERS.

Mr. Pentland moved that a committee be appointed to wait on Mr. Walters, and ask him to reconsider his declination, as it was probable that some misapprehension existed which had induced that gentleman to decline the office.

Mr. W. W. Bowie opposed the motion and proposed to go into an election to supply the vacancy.

A motion was then made to defer the election until the next meeting, which was predicated upon the fact that but few were aware of the intended declination of Mr. Walters until the chair had announced it at the meeting, and consequently it was proper that time should be had for the selection of Mr. Walters' successor. The motion was defeated—when Mr. Whitman, Mr. Alex. Brown and Mr. J. H. McHenry were nominated, and the first named was elected. Mr. Walters was then elected Vice-President in place of Mr. Whitman, and the meeting adjourned to the third Tuesday in February.

February 17.—The society met pursuant to adjournment, Mr. Whitman, President, in the

chair, who, on calling the meeting to order, thanked the society for the honor conferred upon him.

The Secretary stated that he had received a number of communications from different gentlemen in the counties who had been elected officers, some of them accepting and others declining to fill the respective positions assigned them. On motion of Mr. W. W. Bowie, these communications were read. Dr. Geo. W. Dorsey was elected to fill the vacancy in the Vice-Presidency for Calvert, vice Judge Magruder declined. Mr. C. Mowton Saunders and Robert J. Halliday were elected on the Executive Committee, in place of Judge Dobbin and Mr. W. D. Brackenridge declined. Capt. Snow having resigned his position as Corresponding Secretary, Mr. Wm. B. Sands, of the *American Farmer*, was nominated to fill the vacancy, but declined, when the Recording Secretary was directed to perform the duties for the present.

The Executive Committee was directed to consider the propriety of holding a spring exhibition.

After some other routine business, the meeting adjourned to 17th March.

The "Farmer"—Hudson Corn, &c.

To the Editors of the American Farmer:

The *Farmer* has been a very close companion of mine during the twelve months past, and from a perusal of its pages I have derived very much profit as well as pleasure.

I will here thank you for the "Hudson corn," 420 grains in all, which I planted myself, two grains in a hill, giving it a slight sprinkling of barn-yard manure broadcast. It all came up, producing fine, healthy stalks, and bearing from two to four ears per stalk. But the rain came and the flood descended (last August you recollect,) and it fell. Some of it matured and some did not. I husked it all the other day and found I had over two bushels ears, good and bad. I shall plant all I have this spring, and wish I had about a peck or half bushel more. My conclusions in regard to it are these:

It is not an early maturing corn, although I see some of your correspondents state the contrary.

It is a very prolific corn on good land.

It is likely to deteriorate, a considerable part of mine being mixed with yellow, although it was grown entirely to itself.

I grew last year a field of Ohio Mammoth Dent corn, with which I am very well pleased. It produced a fine stalk, with large blades and plenty of them, making valuable fodder when cured. I harvested forty-four bushels to the acre from ordinary soil—no manure—replanted three or four times, and as bad a drought as you or I hope ever to witness again. It is white, small cob, running from twenty to thirty-two rows and from thirty to fifty grains in a row. I believe it would have been one-third larger had it been seasonable. It makes the most beautiful white meal I have ever seen.

Middletown, Del.

W. F. G.

 Messrs. Bullock & Son have taken an office in S. Gay street for sale of their bone dust.

Hygiene.

Hints for Nurses.

The following sensible suggestions are from the pen of Florence Nightingale:

Conciseness and decision are, above all things, necessary with the sick. Let your thoughts expressed to them be concisely and decidedly expressed. What doubt and hesitation there may be in your own mind must never be communicated to theirs, nor even (I would rather say especially not) in little things. Let your doubt be to yourself, your decision to them. People who think outside their heads, the whole process of whose thought appears, like Homer's, in the act of secretion, who tell everything that led them towards this conclusion and away from that, ought never to be with the sick.

Irresolution is what all patients most dread. Rather than meet this in others, they will collect all their data, and make up their minds for themselves. A change of mind in others, whether it is regarding an operation, or re-writing a letter, always injures the patient more than the being called upon to make up his mind to the most dreaded or difficult decision. Further than this, in very many cases, the imagination in disease is far more active and vivid than it is in health. If you propose to the patient change of air to one place one hour, and to another the next, he has, in each case, immediately constituted himself in imagination the tenant of the place, gone over the whole premises in idea, and you have tired him as much by displacing his imagination, as if you had actually carried him over both places.

Above all, leave the sick room quickly and come into it quickly, not suddenly, not with a rush. But don't let the patient be wearily waiting for when you will be out of the room or when you will be in it. Conciseness and decision in your movements, as well as your words, are necessary in the sick room, as necessary as absence of hurry and bustle. To possess yourself entirely will ensure you from either failing—either loitering or hurrying.

If a patient has to see, not only to his own but also to his nurse's punctuality, or perseverance, or readiness, or calmness, to any or all of these things, he is far better without that nurse than with her—however valuable and handy her services may otherwise be to him, and however incapable he may be of rendering them to himself.

BIG SUNDAY DINNERS.—A Sunday's dinner is made the most sumptuous meal of the week in a great many households, and the guests retire from the table more like gorged anacondas than intellectual human beings, with the result that during the whole afternoon there is such an amount of mental, physical and religious sleepiness, if not actual stupidity, that no duties whatever are performed with alacrity, efficiency and acceptableness. The Sunday dinner made of a cup of hot tea, some bread and butter, with a slice of cold meat, and absolutely nothing else, would be wiser and better for all; it would give the servants more leisure; the appetite would be as completely satisfied half an hour afterwards, while body, brain and heart would be in a fitting condition to perform the duties of the Sabbath.

DOMESTIC RECIPES.

NEW AND OLD.

From a Lady, for the American Farmer.

MUFFINS.—One pint flour, two eggs, well beaten, as much milk as will make a suitable batter, with a little sour cream, if you have it. Add a small piece of butter or lard. Then dissolve a small teaspoonful of soda in a tablespoonful of cold water, and not quite as much tartaric acid, and stir it in just as you are going to bake them.

ENGLISH BREAKFAST ROLLS.—Roll a quarter of a pound of butter into a pound of flour; then add a tablespoonful of good yeast, and break in one egg. Mix it with a little warm milk poured into the middle of the flour; stir all well together, and set it by the fire to rise; then make it into light dough, and again set it by the fire. Make up the rolls, lay them on a tin, and set them in front of the fire before you put them into the oven, and brush them over with egg.

WINTER PEA SOUP.—Boil one pint of split peas in three quarts of water till soft. Then stew in the soup a pound and a half of beef and a slice of bacon, with a few cloves and a little mace. Let it stew for two hours, run it through a colander, pepper and salt to taste, and add a lump of sugar. Serve with bread, fried and cut into dice, on a separate dish.

FRICASEED TURKEY.—Cut up a small young turkey, rinse it in cold water, put it into a stewpan, and set it over a gentle fire; take off the scum as it rises, and add a large teaspoonful of salt, when it is tender and white, and the same of pepper. Work a tablespoonful of flour with a quarter of a pound of sweet butter, and stir it with the fricassee by the spoonful. Dip a bunch of parsley in hot water, chop it small and put in the stew-pan, cover and let simmer gently for fifteen minutes, then serve with boiled rice or mashed potatoes for breakfast or dinner.

FUN AT HOME.—Don't be afraid of a little fun at home, good people. Don't shut up your houses lest the sun should fade your carpets; nor your hearts, lest a happy laugh should shake down some of the musty cob-webs there. If you want to ruin your sons, let them think that all mirth and social enjoyment must be left on the threshold when they come home at night. When once a home is regarded as only a place to eat, drink and sleep in, the work is begun that ends in gambling-houses and degradation. Young people must have fun and relaxation somewhere. If they do not find it at their own hearthstones, it will be sought in other and perhaps less profitable places. Therefore let the fire burn brightly at night, and make the home ever delightful with all those little arts that parents so perfectly understand. Don't repress the buoyant spirits of your children; half an hour of merriment round the lamp and firelight of home blots out the remembrance of many a care and annoyance during the day, and the best safeguard they can take with them into the world is the unseen influence of a bright little domestic sanctum.

THE great secret of health is obedience to the laws of health.

A Good Fertilizer.

The *Scientific American* says farmers have to pay a high price for an article, which, with a little skill, they could make themselves during the winter months or on rainy days, when they have little else to do, and gives a recipe for a cheap fertilizer successfully used by farmers in Penna. and Ohio.

Our cotemporary is an authority in all economic arts, but we are inclined to differ with it as to the saving which farmers effect in making their own artificial manures. If they can buy from reputable manufacturers compounds of established merit, we believe it is better for them to pay the maker's profit. It is only where there is reasonable doubt in the character of the substance offered them, that it is expedient for them to undertake the manufacture themselves. Farmers must buy their materials at retail rates and mix them by hand or with improvised and unsuitable machinery; their laborers are unacquainted with the ingredients they are using, and, in handling them, are liable to injure themselves, or the property of their employers. Manufacturers, on the other hand, purchase in large lots, seize every advantage of the market by buying in advance of the season for use, have machinery specially adapted to and made for the various manipulations required, and hands who become expert in all the processes of the manufacture. The formula presented below is, however, wanting—except incidentally, as recommended—in the ingredient which is most apt to give trouble and to cause injury in transportation and handling, viz: oil of vitriol, or sulphuric acid, and is doubtless a good one, if the article is applied in sufficient quantities. The mixture is especially recommended for potatoes and wheat, by a farmer who has tried it, and who says he has used it with success on corn and other products. It is as follows:

Take 1,000 lbs. of good mold, sieve and screen it to get the gravel out and make it as fine as possible; then spread on a floor, add 100 lbs. sulphate ammonia, 100 lbs. common salt, and mix with a rake; when thoroughly mixed, add 25 lbs. pearl ash and 22 lbs. sulphate of soda, mix well, then add 400 lbs. ground bone, 25 lbs. best Peruvian guano, and 150 lbs. ground plaster. Mix the whole thoroughly, throw in a pile for forty-eight hours, and it is fit for use. If it is to be used for potatoes in districts where potato bugs are numerous, 5 gallons sulphuric acid may be sprinkled over the mass. The caution is added that the acid must not be used in a confined place, as the fumes are injurious to health, and that if it is spilled on the floor, water must not be thrown on it, as the mixture generates great heat.

ANOTHER RECIPE.—The *Mass. Plowman*, in answer to a correspondent who asked for the formula of Liebig's great fertilizer, says:—

"The following, which we find in the *Journal of Chemistry*, is undoubtedly the one to which our correspondent refers: dry peat 20 bushels; unleached ashes 3 bushels; fine bone dust 3 bushels; calcined plaster 3 bushels; nitrate of soda 40 pounds; sulphate of ammonia 33 pounds.

Mix the first, second and third together; then mix the fifth, six and seventh in five buckets of water. When dissolved, add the liquid to the first, second and third articles; when mixed, add the fourth article."

HOME-MADE FERTILIZER.—A North Carolina correspondent who was furnished through our Agency with chemicals for a fertilizer, writes us as follows:

I intended to give you a correct account of the result of my experiment with those ingredients you sent to me last spring and made into a formula that was taken from the *American Farmer*.

It was 40 lbs. nitrate of soda, 60 lbs. sulphate ammonia, 1 bbl. bone dust, 1 bbl. plaster, 1 bbl. oak ashes, $\frac{1}{2}$ bushel salt, mixed with 1,200 lbs. of fine stable manure; the salts mixed in 1 bbl. water, and sprinkled over the manure.

I used it side by side two rows each, with two manufactured fertilizers, 450 lbs. each to the acre, and 600 lbs. of my mixture, or *Wilson's formula*, as I call it. The result of each was about the same. The formula cost me in actual outlay \$18 per ton—the purchased fertilizers cost \$50 per ton each.

Yours, &c. J. WILSON.

JOB PRINTING.—It will be seen by an advertisement elsewhere that persons wishing printing of any kind done, can have the same executed in the best style through this office. We can guarantee that all work sent out will be satisfactorily performed.

Machine Shops at Public Sale.

The undersigned, wishing to dissolve copartnership, will sell at PUBLIC SALE, on Tuesday, the 17th day of March, their Machine Shops, Foundry and several lots of Land. This property is well located for any public business.

WAGONER & MATTHEWS,
mar-1t Westminster, Carroll county, Md.

STEAM MARBLE WORKS.**BEVAN & SONS,**

No. 70 HOWARD ST., NEAR SARATOGA,

Would call attention to their fine collection of MONUMENTS, TABLETS, &c.; GRAVESTONES FOR CEMETERIES; also a varied assortment of MARBLE MANTLES, and are prepared to execute all kinds of Marble Work for building.

mar-1y

 **EXTRA EARLY EGYPTIAN BEET**, \$2 per pound; **MARROWFAT PEAS**, \$3 per bushel; **EXTRA EARLY PEAS**, \$7 per bushel; **WHITE SILVER-SKIN ONION**, \$3.50 per pound; **RED ONION SEED**, \$2.50 per pound; **YELLOW ONION SEED**, \$2.75 per pound; **LARGE FLAT DUTCH CABBAGE**, \$4 per pound; **PREMIUM FLAT DUTCH CABBAGE**, \$5 per pound; **TROPHY TOMATO**, \$4 per pound; **LARGE SMOOTH RED TOMATO**, \$4 per pound.

J. BOLCIANO & SON,
Cor. Calvert and Water Sts., Baltimore.

[mar-1t]

Baltimore Markets, Feb. 24.*The quotations below are Wholesale Prices.*

Breadstuffs.—*Flour*—Market dull and demand light. Howard St. Super \$5.25@5.75; do. common to fair Extra \$6.25@7.25; do. good to choice do. \$6.50@6.75; do. Family \$7.25@9. Ohio and Indiana Super \$5@5.50; do. common to fair Extra \$5.75@6.25; do. good to choice do. \$6.50@6.75; do. Family \$7@8.50. City Mills Super \$5@6; do. low to medium Extra \$6.75@7.50; do. Rio brands do. \$8.25@8.50; City fancy brands \$11. Eye Flour \$4.75@5. Fine Flour \$4.25@4.75. Corn Meal. City Mills, \$4.50; Western \$3.50.

Wheat.—Market dull. Receipts moderate. Sales of Maryland white 15@185 cts. for common to prime; do. red 16@185 cts.; Penna. red 170 cts.

Corn.—Market rather quiet. Southern yellow 74@75 cts.; do. white 75@77 cts. for prime. Western mixed 76@77 cts. The large receipts in damp condition affect prices unfavorably.

Rye—Dull, with sales at 98 cts.

Oats.—Demand fair and market steady. We quote Southern at 58@59 cts.; Western 55@58 cts.

Broom Corn—Dull. Quotations nominal. Common red 6@7 cts.; Hurl 10@12 cts.

Cotton—Quiet, but prices for good grades firm. We quote as follows: Middling 15@16 cts.; low middling 14@15 cts.; good ordinary 13@14 cts.; strict good ordinary 14@15 cts.

Dairy Products.—*Butter*—Md. and Pa. rolls 28@40 cts.; Western rolls 38@41 cts. *Cheese*—Western Factory 16@16½ cts.; Eastern do. 16½@17 cts.

Hay and Straw—Dull. Choice Timothy \$23@24; good straw \$18. Clover hay \$15@17. Mixed \$17@19. Rye straw \$15. Oat straw \$15@16.

Liv. Stock.—*Beef Cattle*—Demand moderate; supply fair. Last sales—best on sale 5½@6½ cts.; generally rated first class 4½@5½ cents; medium quality 4½@4¾ cts.; ordinary steers, oxen and cows, 3@4 cts.

Hogs.—Receipts large. Sales at 7@8 cts. net.

Sheep.—In demand; supply light. Common to fair 5½@6½ cts.; fair to good 6½@7 cts.; extra 7½ cts.; gross stock Sheep \$2.25 per head.

Molasses.—Muscovado 22@23 cts.; New Orleans 60@75 cts. Syrups.—Calvert 58@62 cts.; Chesapeake 46 cts.; Canton Sugar-house 25@28 cts. in hds., and bbls.

Milk Feed.—Cty Mills Brownstuff 22@23 cts. lbs. bbls., and \$24@25 per ton; do. Middlings 25@26 cts. for light, 45 cts. for heavy.

Onions.—Scarce; \$6 per bbl.

Potatoes.—Maine Jacksons and Carters, from vessel, \$1 per bbl.; Early Rose \$3.75@4.00 per bbl.; White Peach Blows \$3.50 per bbl.

Plaster.—\$1.75 per bbl., of 320 lbs.

Provisions.—Market dull. Bulk Shoulders 6½ cts.; clear-rib Sides 8½ cts.; Bacon Shoulders 7½ cts.; clear-rib Sides 9@9½ cts. Ham 12@14 cents. Mop Pork \$16. Lard 10@11 cts.

Rice.—Carolina 8½ cts. Rangoon 7½ cts.

Salt.—Liverpool Fine \$3.10@3.15; Ground Alum \$1.20 @1.25 per sack. Turk's Island .85 per cts. per bbl.

Seeds.—Clover 26.25@26.70 per bbl. Timothy \$3.50@3.75 per bbl. Orchard Grass \$2.12@2.37 per bbl. of 12 and 14 lbs.; Red Top \$5 per bag of 50 lbs. Ky. Blue Grass \$2.25@2.50 per bbl. of 14 lbs. Orchard Grass and Clover, demand heavy and prices advancing.

Tobacco.—Rec'd-pts small; market dull; no change.

Whiskey.—\$1.00 per gal.

Wool.—Firm; receipts light; Washed 45@48 cts.; Unwashed, free from burs. 25@30 cts.; do. burry 15@20 cts.

NEW ADVERTISEMENTS.

Baugh & Sons.—Raw Bone Super-Phosphate.

A. C. Coe.—Coe's Original Bone Super-Phosphate.

R. W. L. Rasin.—Soluble Sea Island Guano.

Massey & Houston.—Vegetable Plants.

Henry C. Jenkins.—Berkshire Pigs for Sale.

Griffith, Baker & Bryan.—Garden Seeds, Agricultural Implements, &c.

Wagoner & Matthews.—Machine Shops at Public Sale.

John J. Willis & Co.—Tomato Seed.

J. J. H. Gregory.—Seed for Granges.

J. J. H. Gregory.—Marblehead Mammoth Cabbage.

J. H. Page.—Sail of Mairhick (Mr. Coffin's) Herd.

Frank Ford.—Hoosac Thornless Blackberry.

Bevan & Sons.—Steam Marble Works.

J. M. Thorburn & Co.—Flower Seeds.

J. D. Oakford.—Prize Poultry and Eggs.

Wm. Bowman.—Fancy Poultry and Eggs.

J. W. Kerr.—Fruit and Ornamental Trees, &c.

John Cook.—Strawberry Plants, Grape Vines, &c.

Orange Co. Milk Pan Co.—Premium Milk Pan.

J. Bolgiano & Son.—Seeds.

Contents of March No.

Fish Culture in Maryland.....	81
American Fish Cultural Association.....	82
Pennsylvania Fruit Growers' Convention.....	84
New Fruits, by J. W. Kerr.....	87
Co-operative Dairying, No. 3, by Mr. Bliss.....	88
The Cow, by Mr. Hazard, continued.....	89
Cross-bred Dairy Cows.....	90
Management of Stable Manure, by Mr. Wenig, of Prussia.....	91
The Agricultural Situation of France.....	92
A Reminiscence, by Major McCue.....	93
Plowing and Manuring, by Mr. White, of Massachusetts.....	94
Merino Sheep for Maryland, by Gen. Goe.....	94
Straw as Manure, by J. M. McCue.....	95
Merino vs. Cotswold Sheep, by Farmer.....	96
Mixed Farming at the South, by J. D. Thorne, of N. C.....	96
Pea Culture, by Mr. Gilmer.....	97
Cultivation of Lucerne, by Mr. Coffin.....	97
Excelsior vs. Guano, by Mr. Blackstone.....	98
Ice-Houses and Hedges.....	98
Sending Fruit to Market, by Mr. Williams.....	98
Agricultural Calendar for March.....	99
Vegetable Garden for March.....	101
Lawn and Flower Garden, Green-Houses, Orchids, by Mr. Brackenridge.....	101
Horticultural Exaggerations, by W. F. Massey.....	102
Farmers' Meetings—Maryland State Agricultural Society, 103; Baltimore County Clubs, 104; King George, Va., Club.....	105
Report on Dairies, in Montgomery County.....	106
Notes of Sandy Spring Club—Southern Agriculture, Cotton, Potatoes, &c.....	107
Green Crops as Manure for Tobacco.....	108
Hudson Corn for Sale.....	108
Agricultural Schools, by Mr. Seaborn.....	109
The Apriary—Cheap Hive.....	110
Poultry Show in Western New York.....	111
Agricultural Implement Trade of Baltimore.....	111
Hydrangea P. Grandiflora.....	112
Japan Primrose, cut.....	113
Thornburn & McGinniss' Lime Spreader, cut.....	113
Jewett's Patent Milk-Pans, cut.....	113
Fish and Sheep Laws in Maryland.....	113
"The Farmer" and its Progress.....	114
To Correspondents.....	115
A Fine Seeding Peach.....	115
Sales of Maryland Herds of Cattle.....	115
Platform of Patrons of Husbandry.....	116
Memorial do. to Southern States.....	117
Maryland State Horticultural Society.....	118
The Farmer—Hudson Corn.....	118
Hygiene—Hints for Nurses.....	119
Big Sunday Dinners.....	119
Domestic Recipes.....	119
Fun at Home.....	119
Formulas for Fertilizers.....	120
Job Printing.....	120
Baltimore Markets.....	121
New Advertisements.....	121

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Most Perfect, Complete and Durable. One pan holds a milking. Four pans in a set.

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THE AMERICAN FARMER.

AUCTION SALE OF THE MUIRKIRK HERD.

The subscriber has been retained by Mr. CHAS. E. COFFIN, MUIRKIRK, Prince George's county, Md., to sell his entire herd of SHORT-HORNS, on

WEDNESDAY, 13th day of May next.

Mr. COFFIN founded his herd with animals either direct or strongly in-bred to Bates, Booth, Princess, Gwynnes, and other good strains, imported and home-bred. Having a personal knowledge of the Herd, I can recommend them to all gentlemen wishing good individuals well bred. The bulls last in use are imported ROYAL BRITON and LORD ABRAHAM, Booths; LORD MAYOR of the Princess tribe, and the extra good BATES BULL, 6TH EARL OF OXFORD.

Muirkirk is a station on the Baltimore and Ohio R. R., 15 miles from Washington, D. C. Three trains each way in the morning.

TERMS:—Cash on sums under \$200. Over \$200, approved paper at 6 per cent., or a discount for cash of 5 per cent. No postponement, no reserve. Residence 200 feet from railroad.

Catalogues ready early in April, for which address owner or salesman.

JOHN R. PAGE,
Sennett, Cayuga Co., N. Y.

~~The Sale of C. C. PARKS, Esq., Waukegan, Ill., occurs on Wednesday, May 20. Col. KING's Sale at Dexter Park, Chicago, on Thursday, May 21.~~

mar-3t

Improved Stock, Implements, &c.

FOR SALE.

The undersigned, intending to sell or rent a large portion of his farm, and to reduce greatly the number of head of stock owned by him, will SELL AT AUCTION,

On the 8th and 9th April, 1874,

(the live stock on the first named day)

~~A~~ A number of Jersey Herd-Book Bulls, Cows and Heifers, a Devon Bull and several Cows, a thorough-bred Stallion, a Trotting Stallion and a half-bred Percheron Stallion, several Horses, Colts and Mules. Also a lot of Farming Implements, Wagons, Harness, &c., &c.

Catalogues will be published some weeks in advance of the day appointed for the sale, and will be forwarded to applicants.

J. HOWARD McHENRY,
feb-2t Pikesville, Baltimore Co., Md.

BERKSHIRE PIGS FOR SALE.

I have some thoroughbred PIGS, about eight weeks old, which I will sell for \$8 a piece or \$15 a pair, delivered in Baltimore. To each purchaser of pigs from me I will send a copy of the American Farmer one year.

HENRY C JENKINS,
mar-1t Pylesville, Harford Co., Md.

TOMATO SEED.

On receipt of ONE DOLLAR, will send one ounce of

Packers' Pride Tomato Seed
to any address in the United States, post paid.
Address

JOHN J. WILLIS & CO.

mar-1t Mt. Holly, N. J.

NEW BLACKBERRY.

HOOSAC THORNLESS.

No Thorns to Scratch; 8 years under cultivation; Hardy; never has winter-killed; quality, the best; in productiveness, unequalled. Prepaid by mail, \$1.00 each; 2 plants, \$1.50; 6 plants, \$3.00; 12 plants, \$5.00. For full history of berry and plate, with testimonials, address *at once*.
FRANK FORD, Ravenna, O.
Agents wanted everywhere; liberal inducements.

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Light Brahmias,

Dark Brahmias,

Buff Cochins,

W. F. Black Spanish,

White Leghorns,

W. A. MYERS,

New Oxford, Adams
County, Pa.

Eggs, \$3 per doz.

Two doz., \$5.

All from noted prize-winning strains. Inquiries cheerfully answered.

mar-1t

THORBURN'S FLOWER SEEDS.

Our annual descriptive Catalogue of Flower Seeds, containing all the novelties, also Hybrid Gladiolus and Spring Bulbs, is now ready for mailing free to applicants; also Tree Seed Catalogue.

J. M THORBURN & CO.,
15 John Street, New York.



My business is to supply what every farmer of experience is most anxious to get, perfectly reliable Vegetable and Flower Seed. With this object in view, besides importing many varieties from reliable growers in France, England and Germany, I grow a hundred and fifty kinds of vegetable seed on my four seed farms, right under my own eye. Around all of these I throw the protection of the three warrants of my Catalogue. Of new vegetables I make a specialty, having been the first to introduce the Hubbard and Marblehead Squashes, the Marblehead Cabbages, and a score of others. My Catalogue containing numerous fine engravings, taken from photographs, sent free to all.

Jan-4t JAMES J. H. GREGORY, Marblehead, Mass.

THE AMERICAN FARMER.

J. W. KERR,
Denton, Caroline Co., Md.

offers for spring planting a general assortment of carefully grown NURSERY STOCK. A superior lot of APPLE TREES, varieties suited to the climate of Maryland; also, APRICOT, PLUM and QUINCE TREES. A large stock of HOUGHTON GOOSEBERRY, Conover's Colossal ASPARAGUS, Wilson's Albany STRAWBERRY PLANTS, strictly pure.

Also, SHADE TREES, EVERGREENS, FLOWERING SHRUBS, &c., &c.

Send for Spring Price-List.

All Stock sent from these Nurseries is in every respect as represented.

PRICES VERY LOW.

mar TERMS CASH.

FOR SALE—Fancy Poultry.

	TRIO.
Light and Dark Brahma.....	\$10.00
White-Face Black Spanish.....	9.00
Buff Cochins.....	12.00
White Leghorns.....	9.00
Hondans.....	9.00
A few trio of the above breeds from the best imported stock, which took 1st and 2d prize premiums at the last State Agricultural Fair. Eggs from the following varieties:	PER DOZ.
Light and Dark Brahma.....	\$3.00
Buff, White and Partridge Cochins.....	4.00
Silver-Spangled and White Polands.....	3.00
White-Face Black Spanish.....	3.00
White Leghorne.....	3.00
Silver-Spangled Hamburgs.....	2.50
Hondans.....	2.50
White Frizzled Bantams.....	3.00
Black-Breasted Red Game Bantams.....	3.00
White Aylesbury Juncs.....	3.00
No circulars. Write for what you want. Cash to accompany order. Nothing sent C. O. D.	

Apply to WILLIAM BOWMAN,
Care of Wm. Bowman & Son, Old Metal Dealers,
mar-17 No. 116 Eastern Avenue, Baltimore.

Marblehead Mammoth!



You will find in my Seed Catalogue letters from a score of people, who by following the directions sent with every package of seed, have raised this Cabbage to weigh from 30 to 60 lbs. a single head! I was the original introducer of this giant Cabbage, and my seed is all grown from heads that are extra large and very solid. Sent postpaid by me, 25 cts. per package; \$1.00 per ounce; \$10.00 per lb. My Seed Catalogue is sent free to all applicants.

It JAS. J. H. GREGORY, Marblehead, Mass.

VEGETABLE PLANTS.

EARLY WAKEFIELD CABBAGE.

Fall sown.....	100	1,000
	\$.75	\$6.00

CELERY PLANTS.	75	6.00
TOMATO PLANTS.	75	5.00

Canada Victor, in May.....	3.00	15.00
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Trophy, from selected seed	2.00	15.00
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Trophy, general crop from cold frames.....	75	5.00
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Canada Victor and Trophy in pots (doz. #1).	5.00	5.00
--	------	------

Arlington and Richman's Early.....	1.00	7.00
------------------------------------	------	------

LETUCE.

Boston Market and Simpson, (fall sown)....	50	4.00
--	----	------

Massey's Winter Head, (fall sown).....	1.50	10.00
--	------	-------

Hansen, the original stock (originated here).	2.50	2.50
--	------	------

EGG PLANTS.

May 15th—grown in pots—(per doz.) \$1.50).	5.00	5.00
---	------	------

SWEET POTATO PLANTS.

New South'n Queen and Yel'w Nanemond.	30	2.50
--	----	------

ASPARAGUS.

Conover's Colossal—2 years—(extra fine)....	1.00	6.00
---	------	------

CABBAGE.

Spring own plants of Fottler's Brunswick.	1.00	1.00
--	------	------

Spring own plants of Wakefield and Early York.....	40	3.00
--	----	------

Last of June and thereafter—Drum Head, Flat Dutch, Bergen, Drumhead Savoy and Winnigstad.	30	2.50
--	----	------

We invite correspondence with those who wish to plant largely, as our prices in many things will be much reduced by the 10,000. The above are prices by express. For \$1.00 per 100 additional we will mail the plants free of postage. As to the remarkably superior character of our Asparagus roots, we refer to Col. Edward Wilkins and R. S. Emory, Esq., of this place, who have planted them largely. Send for our Price-List of Plants for the Garden and Parlor.

MASSEY & HUDSON,

mar-31 Chestertown, Kent County, Md.

HALF MILLION OF STRAWBERRY PLANTS,

largely of Charles Downing, Wilson's Albany, Boyden's No. 30, Russel, Nicanor, Kentucky Late, at \$1 per 100, \$6 per 1,000, \$35 per 10,000. MONARCH of the WEST, \$6 per 100, 20,000 GRAPEVINES; also, RASPBERRIES, BLACK-BERRIES, Currants, CONOVER'S COLOSSAL ASPARAGUS, at the lowest rates. Send for Price-List.

CAMPBELL'S SIXTY DAYS SUGAR CORN, the earliest Corn in cultivation, 30 cents per pint by mail. Address,

JOHN COOK,

mar-21 Carroll P. O., Baltimore Co., Md.

SEED FOR GRANGES !

I offer Seed to my fellow-Grangers at a liberal discount. Special rates sent to all Granges that apply through their Secretaries.

It JAMES J. H. GREGORY, Marblehead, Mass.

Eggs. Pure Bred Prize Poultry. Fowls.

BLACK HAMBURGS. HOUUDANS. BROWN LEGHORNS.

These three breeds will lay more eggs and the chickens are easier raised and mature earlier than any other breeds known. Dark Brahmases noted "Lady Gwydyr's" stock. Light Brahmases, "J. K. Feich's" celebrated pedigree stock. Eggs two dollars per setting, packed with care in boxes or baskets in cut hay, and in rotation as orders received. A few Dark Brahmases and Hondans for sale, \$10 per trig.

JOHN D. OAKFORD,

mar-4th 83 North Street, Baltimore.

COE'S Original Ammoniated Bone Phosphate.

ANDREW COE, Esq.

ANNE ARUNDEL Co., Md., February 21, 1874.

Dear Sir—I commenced using your Ammoniated Bone Super-Phosphate of Lime in 1866, and since that time I have used about one hundred tons of your Phosphate; and I have also used most, if not all, of the standard Fertilizers in the market, and after seven years experience I prefer yours to any other kind I have used. I shall want of you 15 or 20 tons this season.

BASIL S. BENSON.

Office of COE'S ORIGINAL PHOSPHATE,
172 West Pratt Street,

BALTIMORE, MD.

For Tobacco and all Spring Crops,

"USE"

BAUGH'S

RAW BONE



SUPER-PHOSPHATE.

This old-established article continues to give universal satisfaction, having the past year, in competition with leading brands, proved its superiority over all others.

Also, Ground Raw Bones and Bone Meal,

GUARANTEED PURE.

No. 1 PERUVIAN GUANO and Chemicals for making Super-Phosphates.

BAUCH & SONS,

No. 20 S. DELAWARE AVENUE, PHILADELPHIA.

No. 103 SOUTH STREET, BALTIMORE.

THE AMERICAN FARMER.

SOLUBLE SEA ISLAND GUANO.

LONG GREEN, Baltimore Co., Md., November 18, 1872.

R. W. L. RASIN & Co.

Gentlemen :—I am pleased to bear testimony to the satisfactory results obtained from the Soluble Sea Island Guano purchased of you last spring. I have used it on corn, potatoes and vegetables with entire satisfaction. On part of my potatoes I used Peruvian Guano and Bone in much larger quantity than Sea Island Guano, but in the growth and yield the difference was very marked in favor of the Sea Island. I do most confidently recommend the use of it to the farming community, and should the standard be maintained I feel confident you will soon find ready sale for it in large quantities. Very respectfully, your friend, &c.,

SAMUEL M. RANKIN.

The Best Guano on the Market. Ahead of Best Peruvian.

NEWSOM'S DEPOT, Southampton Co., December 6, 1873.

Gentlemen :—I hereby certify that the Soluble Sea Island Guano is the best Guano in the market for cotton, corn, potatoes and melons, and is far ahead of the best Peruvian Guano. Will want three tons next year. Yours truly,

DR. J. H. GRIFFIN.

My Neighbors will bear Testimony with me.

BOYKIN'S DEPOT, Va., October 4, 1873.

Gentlemen :—Yours in reference to the Sea Island Guano I purchased of you last spring is received and noticed. I regard it as a No. 1 fertilizer, and my neighbors bear will testimony with me. I applied it under cotton, corn and sweet potatoes, at the rate of 200 lbs. to the acre, and am perfectly satisfied with the effect and result. I have had no rust, and the bolls continue in good state.

Yours truly, E. B. BEATON.

P. S.—If to be had, I expect to use the Sea Island next year.—E. B. B.

"I prefer it to any I have ever used."

November 20, 1873.

MR. BOOKER :—Your letter is just to hand. I reply I can say I am highly pleased with the Sea Island Guano. I prefer it to any I have ever used, pound for pound. I used it at the ratio of two hundred (200) pounds to the acre. I will make some 1,500 pounds to the acre of tobacco. The crop doesn't seem to suffer from drought. It ripens yellow and forward on this land. I followed with wheat. It is looking fine.

Respectfully, A. H. OWEN.

PURE OHIO GROUND BONES

at market prices, and

GERMAN POTASH SALTS

of our own importation, in quantities to suit purchasers.

R. W. L. RASIN & CO.,

No. 32 South Street,

BALTIMORE.

THE AMERICAN FARMER.

GARDEN SEEDS,
Guano, Bone, Plaster and Fertilizers,
CLOVER, TIMOTHY, ORCHARD,
KENTUCKY BLUE,
And other Field Grass Seeds.

Lawn and Ornamental Grass Seeds.



BUCKEYE SELF-DISCHARGING HORSE RAKE.

AGRICULTURAL AND Garden Implements OF EVERY DESCRIPTION.

We invite the attention of Farmers, Gardeners and others to our complete stock of Implements, Seeds, &c., in which will be found all articles pertaining to our business. We make specialty of each department of our business in their respective seasons, and guarantee everything as represented. We have just secured a new supply of GARDEN SEEDS of the latest and best varieties, all of which are fresh and true to name.

We are agents for the celebrated "GUANAHANI" GUANO, which is being introduced in this market. It is esteemed by many as equal to Peruvian Guano, and sells at \$40.00 per ton.

In our stock of implements we include an assortment of the very best in the market—among which are the "MEADOW LARK" MOWER, warranted equal in efficiency of working to any other machine in the market, and sells at \$95.00; with self-rake attachment, as a combined reaper and mower, \$175.00.

Buckeye Self-discharging Wheel Horse Rake,
Hand-delivering Wheel Rakes,
Bullard's Hay Tedder,
Hagerstown Grain, Seed & Fertilizer Drill,
Empire Thresher and Cleaner,
Champion Rye Thresher,
Thornburg & McGinnis' Lime Spreader,
Pelton and Railway Horse Powers,
Pioneer Stump Puller,
Steel Plows, &c.

GRIFFITH, BAKER & BRYAN,

41 & 43 N. Paca Street,

mar BALTIMORE, MD.

Guano! **Guano!**
C. W. BURGESS & SON,
166 North Gay Street, Baltimore,
DEALERS IN
MEXICAN AND PERUVIAN GUANO,
PHOSPHATES, &c., and
FERTILIZERS OF ALL KINDS.

Mexican Guano a Specialty,

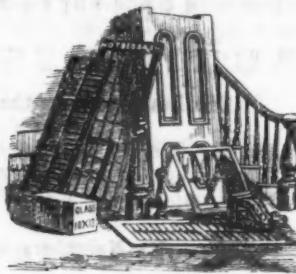
Which they offer for sale at the lowest market rates. From the satisfaction expressed as to the quality of the Fertilizers furnished by us, we feel confident that we can give the purchaser the full value of his money. Give us a call before purchasing.

Country Produce bought and sold.

Also, GROCERIES OF ALL KINDS.

feb-1y

Jno. W. Wilson & Sons.



LUMBER
AND MANUFACTURERS OF
Sashes, Doors, Blinds, Mouldings, Brackets,
Handrails, Newels, Balusters, and other
Building Materials—on hand at reduced prices.
333 SOUTH EUTAW STREET,
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DEALERS

SAUL'S NURSERIES,
PLANT AND SEED ESTABLISHMENT,
WASHINGTON, D. C.

Early Beatrice, Early Louise and Early Rivers, the earliest Peaches known, with all the standard varieties. Beurre d'Assumption, Souvenir de Congress and other new Pears, with a large stock of the leading kinds, standards and dwarfs.

Apples, Plums, Apricots, Cherries, Grape Vines, &c. Small Fruits, Currants, Gooseberries, Blackberries, Raspberries, Strawberries, &c.

PLANT DEPARTMENT.

An immense stock of new, rare and beautiful plants, a new Catalogue of which will be published in February, with a colored plate, mailed free to all my customers—to others, price 10 cents—a plain copy to all applicants free.

VEGETABLE SEEDS

Of the finest quality, fresh and pure, grown by myself or specially for me, or my importations.

FLOWER SEEDS.

Being extensively engaged in importing and growing new and rare plants, consequently my facilities for seed saving are unequalled. The following catalogues, with others, now ready. *Mailed free:*

No. 1.—A descriptive Catalogue of Fruit Trees.

No. 2.—A Catalogue of Garden, Agricultural and Flower Seeds.

No. 6.—A Catalogue of new, rare and beautiful Plants.

JOHN SAUL,
Washington City, D. C.

jan-3t

THE AMERICAN FARMER.



WIRE RAILING

AND

ORNAMENTAL WIRE WORKS.

DUFUR & CO.

No. 36 North Howard Street, Baltimore, Md.
MANUFACTURE

Wire Railing for Cemeteries, Balconies, &c.

SIEVES, FENDERS, CAGES, SAND and COAL SCREENS, WOVEN WIRE, &c.
feb-ly Also, Iron Bedsteads, Chairs, Settees, &c., &c.

GEORGE PAGE & CO.,
Machinists and Founders.

Portable and Stationary Steam Engines and
Boilers, Patent Portable CIRCULAR SAW MILLS,
Portable Grist Mills, Horse Powers, Leffel's
Turbine Water Wheel, &c.

No. 5 N. SCHROEDER STREET, near W. Baltimore street,

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JOSHUA THOMAS,
DEALER IN
FRENCH BURR, ESOPUS & OTHER
MILL STONES, BELTING,
SMUT MACHINES AND MILL MACHINERY, Etc.

Prices Low and Goods Unexcelled.

Parties in want of MILL FURNISHING GOODS will consult their interest by sending for my Price List before purchasing elsewhere.

Also, General Agent for the World-Renowned

BUCKEYE MOWER AND REAPER,
Sweepstakes Thresher and Cleaner,
HAGERSTOWN WHEEL HORSE RAKE,
CLOVER HULLER, Etc.

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No. 35 North St., Baltimore, Md.

THE AMERICAN FARMER.



PENNSYLVANIA ROUTE, FORMED BY THE NORTHERN CENTRAL AND PENNSYLVANIA RAILROADS ON THE

West, Northwest and Southwest,
To PITTSBURG, CINCINNATI,
LOUISVILLE, INDIANAPOLIS,
CHICAGO, ST. LOUIS,
AND ALL OTHER

PROMINENT POINTS.

BALTIMORE & POTOMAC
AND

Alexandria & Fredericksburg Railways
ON THE SOUTH TO

Washington, Richmond,
AND ALL POINTS IN THE
Atlantic and Gulf States.

THE ONLY
ALL RAIL LINE
WITH NO

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NORTHERN CENTRAL

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PHILADELPHIA and ERIE RAILWAYS
ON THE NORTH TO

HARRISBURG, WILLIAMSPORT, ELMIRA,
WATKINS GLEN, ROCHESTER, ERIE,
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N. E. Corner Baltimore and Calvert Streets,
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B. & P. and N. C. R. R'ds. Pennsylvania R. R.
SAMUEL T. DEFORD, Jr.,
Southeastern Agent.

feb

 **M. PERINE & SONS,**
Manufacturers of
Flower Pots, Stone and Earthenware,
POTTERIES AND SALES ROOM,
711 and 713 West Baltimore Street,
mar-1 BALTIMORE, MD.

Canada Victor Tomato!

I invite the attention of the public to extracts from more than a score of letters in my Catalogue for 1874, from Farmers and Gardeners in various States, who raised this New Tomato for the first time last season. These letters are all emphatic in their praises of the Canada Victor Tomato: 1st, for its surpassing earliness; 2d, for its excellent quality, and 3d for its uniform solidity. I now offer to the public, Seed saved from selected specimens only, at 15 cts. per package and \$1.50 per ounce. My Seed Catalogue free to all applicants.

feb-2t JAMES J. H. GREGORY, Marblehead, Mass.

ALFRED H. REIF. J. HENRY REIF.
REIP & SON,
MANUFACTURERS OF
Plain and Japanned Tin Ware,
And dealers in Wooden Ware and Housekeeping Articles—
Agents for the Downer Mineral Sperm Oil.
335 W. BALTIMORE STREET,
feb-1y BALTIMORE.

Early Beatrice Peach

RIPENS FULLY TWO WEEKS EARLIER

THAN ANY OTHER KNOWN VARIETIES
OF PEACH.

This variety has been well tested in large orchards, and hundreds of bushels of this variety put on our market in 1872 and 1873, and on this, the severest test it could have, it has proved even better than all that has been claimed for it. It is full two weeks earlier than Hale's Early, and free from rot, and the Commission Merchants of Philadelphia and New York not only say it is one of the earliest and best peaches, but one of the best shipping peaches that goes on these markets, and brings more than double the price of any other peach.

I also offer 12 other new and well-tested early and late peaches, which will make the season for shipping some four weeks longer. By planting my new late varieties the canning-house can run from one to two weeks longer.

Price List sent free, with testimonials and description, showing exact rotation in the ripening of all the new and popular kinds from early to late, so that all can plant that they may ship every day from first to last of ripening. Address

RANDOLPH PETERS,
Great Northern and Southern Nurseries,
feb-2t Wilmington, Del.

PATTERSON DEVONS.

 Having on hand a superior lot of young DEVONS from 6 to 18 months old, bred from the Patterson Herd, I am prepared to fill orders at reasonable prices.

S. T. C. BROWN,
Sykesville, Maryland.

oct-6t

THE AMERICAN FARMER.

PACIFIC GUANO COMPANY'S SOLUBLE PACIFIC GUANO.

JOHN S. REESE & CO.

No. 10 South Street, Baltimore, Md.

General Agents.

CAPITAL.....\$1,000,000.

The use of this Guano since its introduction in 1861, and the annual increase of its consumption from a few hundred tons the first year of its use, to many thousands of tons, is the best attestation to its value as an efficient agent for the increase of the products of agricultural labor, as well as to the integrity of its production.

The large capital invested by this Company in this business, and its unusual facilities, enables it to furnish a fertilizer of the *highest excellence* at the *lowest cost* to consumers.

It is the policy of the Company to furnish the best fertilizer at the lowest price, and look to large sales and small profit for reasonable returns on Capital employed.

This Guano is sold by Agents of the Company in all the markets of the Middle, Southern and Gulf States.

Price in Baltimore \$50 per ton 2,000 lbs.

feb-6t

JOHN S. REESE & CO.

THE Old Established Depot for Standard FERTILIZERS.



EXCELLENZA SOLUBLE PHOSPHATE

Unsurpassed for all Spring Crops.

Price \$50 per Ton in Baltimore.

EXCELLENZA TOBACCO FERTILIZER,

The BEST of all Tobacco Fertilizers.

Price \$60 per Ton in Baltimore.

We sell also other standard brands of SUPER-PHOSPHATE as well as BONE DUST.

GEO. DUGDALE & CO.
44 Post Office Avenue, Baltimore.

feb-8t

THE AMERICAN FARMER.

TO COTTON GROWERS AND TRUCKERS!

1874



1874

Composed of 800 pounds No. 1 Peruvian Guano and 1,200 pounds of Bones dissolved in Sulphuric Acid, Potash and Soda, forming the most universal crop-grower and concentrated durable Fertilizer ever offered to the farmer, combining all the stimulating properties of Peruvian Guano, and the ever-durable fertilizing qualities of Bones. Adapted for all soils and crops, and in *fine dry powder* for Sowing and Drilling in with the Seed. The most prominent farmers of Maryland and Virginia, after fifteen years' experience with "EXCELSIOR," pronounce an application of 100 pounds per acre, equal to 200 to 300 pounds of any other Fertilizer sold. **UNIFORMITY OF QUALITY GUARANTEED BY MANUFACTURERS.**

Look out for imitations and counterfeits. The popularity of Excelsior has induced unscrupulous parties in this and other cities to copy our trade-mark, and resort to other dishonorable means to sell their *worthless* compounds. **Price \$60 per Ton.**

Feb.

J. J. TURNER & CO., 42 Pratt St., Baltimore, Md.

THE NEW CLIFTON FRUIT CRATE AND VEGETABLE CRATE,

THE BEST THING KNOWN FOR TRANSPORTING FRUITS AND VEGETABLES.

Will supersede all other articles used for these purposes.

Awarded First Premium and Diploma at Md. State Fair, 1873.

First Premium and Diploma at Frederick Fair, 1873.

First Premium and Medal at Va. State Fair, 1873.

First Premium and Medal at Maryland Institute, 1873.

The Crates, and also State, County, Farm and Individual Rights, for Sale by

Feb. 3rd **TENCH TILGHMAN, 9 North St., Baltimore.**

PAINT! PAINT! PAINT! THE AVERILL CHEMICAL PAINT!

Which for DURABILITY, BEAUTY and ECONOMY, is unsurpassed by any other PAINT MANUFACTURED, and is already mixed for use, of all the different shades of color to suit the taste, and is equally good for wood, stone or iron, and will not crack nor chalk off by friction, and will preserve its color twice as long as the best Lead Paint. It is sold only by the gallon, and one gallon will cover twenty square yards of smooth surface two coats.

Send for Circulars and sample cards.

R. & W. H. CATHCART, Sole Agents,
jan-ly 113 Thames street, Baltimore.

Taylor's Rotary Engine,

(PATENTED MARCH 26, 1873.)

This Engine is adapted to any place where power is needed. For hoisting purposes, vessels, boats, &c. Some of its advantages are: First—Simplicity. Second—The small space it occupies, one of twelve-horse power occupying only two feet square space. Third—It reverses INSTANTLY, turning either way at will of operator. Fourth—It has no dead center. Fifth—It requires less steam, consequently less boiler room for same amount of horse-power.

The Excelsior Portable and Agricultural Engine.

Heater inside boiler, (no freezing of pipes,) cylinder incased with steam, consequently using dry steam instead of wet steam. Has more good points than any Portable or Agricultural Engine in the market. STATIONARY ENGINES of most approved styles. Return Tubular Boilers, all sizes.

VERTICAL ENGINES AND BOILERS,

8, 5 and 7 Horse Power—simple, durable and cheap.

CIRCULAR SAW MILLS,

SINGLE AND DOUBLE.

Adapted to any mill site. Built out of the best material. Strong, durable and easily operated. SOLD ON EASY TERMS.

DIAMOND STATE SEPARATORS.

We claim simplicity, durability and capacity to do good work in all kinds of grain, and with any kind of power, from two or three-horse tread, six or eight-horse sweep power, or a four or six-horse engine. First—Its separating the straw from the grain is perfect. It has no rakes or beaters. Second—Its riddles, which are entirely different from any machine in the market, make its cleaning of grain entirely free from straw, &c., and fit for market. Third—It has a feeder's duster which protects the feeder from the dust. Fourth—It is the simplest machine built; has only two belts, is easily handled and runs lighter than any machine doing the same amount of work.

Westminster Triple-Geared Power:

Simple and compact, runs light, has a quick motion, mounted on wheels or down.

IMPROVED HARMAN HORSE-RAKE

Is easily operated by a boy; does not dig and scratch the soil, and in grass or grain has no superior. Runs light and is built in the best manner. We solicit a trial.

Lime and Fertilizer Spreader

Will spread LIME, PLASTER, ASHES FERTILIZERS AND FINE MANURES, and drill in rows if desired. Will spread from 5 to 100 bus. Lime per acre, as desired. It is built in the best manner, and will spread as much in a day with a boy and a pair of horses as fifteen men by hand; while it has no equal in the evenness of its spreading. Every machine warranted. We have the most flattering testimonials of its utility.

HOMINY MILLS,

SELF-SHARPENING GRIST MILLS,

CORN CRUSHERS,

WOOD AND TABLE SAWS,

FORCE PUMPS,

PLOWS OF ALL SIZES,

MILL MACHINERY, &c., &c.

SEND FOR CIRCULARS. AGENTS WANTED.

Address

Taylor Manufacturing Co.

Westminster, Md.

THE AMERICAN FARMER.

MANUFACTURERS OF PURE
No. 1 GROUND PLASTER.
C. S. & E. B. FREY,

No. 18 HARBOR AVENUE, BALTIMORE, MD.
And dealers in Corn Husks. Always buying and pay the
HIGHEST CASH PRICE

FOR CORN HUSKS. feb
1st

THORNBURG & M'GINNIS' LIME AND FERTILIZER SPREADER,

PATENTED 1873.

This machine spreads chip manures, fine barn-yard manures, and broadcasts lime, plaster, ashes and super-phosphates; and also drills the same in rows any desired distance apart, taking two rows at a time, at rates of any quantity per acre down as low as one bushel. It also broadcasts small grains with fertilizers on lands too rough for the drill.

THORNBURG & M'GINNIS,
Aug-ly Willow Grove Springs, Woodstock, Va.

EAST CHESTER NURSERIES. FRUIT TREES,

ORNAMENTAL TREES,
BEDDING PLANTS, &c.

Grape Vines, Raspberries, Strawberries and
other Small Fruits

HARDY HERBACEOUS PLANTS.

SEND FOR PRICE LIST

J. W. COBURN & CO.
East Chester, N. Y.

S. E. TURNER & CO.
STATIONERS AND BLANK BOOK
MANUFACTURERS.

Dealers in WRITING, PRINTING AND WRAPPING
PAPERS, ENVELOPES, TWINES, BAGS, &c., &c.

No. 3 S. Charles Street,
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W.M. STUART SYMINGTON.

PATAPSICO CHEMICAL WORKS.

SYMINGTON BROS. & CO.

MANUFACTURERS OF

OIL VITRIOL AND OTHER CHEMICALS.

Works on Locust Point, } Baltimore.
Office, 44 South Street, }

\$1.000 REWARD
For any case of Blind, Bleeding, Itching or Ulcerated Piles, that DE-BING'S PILE REMEDY fails to cure. Prepared expressly to cure Piles and nothing else. Sold by all Druggists. Price \$1.

**FOUTZ'S
CELEBRATED**

Horse and Cattle Powders.

This preparation, long and favorably known, will thoroughly re-invigorate broken down and low-spirited horses, by strengthening and cleansing the stomach and intestines.

It is a sure preventive of all diseases incident to this animal, such as LUNG FEVER, GLANDERS, YELLOW WATER, HEAVES, COUGHS, DIS-TEMPER, FEVERS, FOUNDER, LOSS OF APPETITE AND VITAL ENERGY, &c. Its use improves the wind, increases the appetite—gives a smooth and glossy skin—and transforms the miserable skeleton into a fine-looking and spirited horse.

To keepers of Cows this preparation is invaluable. It is a sure preventive against Rinderpest, Hollow Horn, etc. It has been proven by actual experiment to increase the quantity of milk and cream twenty per cent. and make the butter firm and sweet. In fattening cattle, it gives them an appetite, loosens their hide, and makes them thrive much faster.

In all diseases of Swine, such as Coughs, Ulcers in the Lungs, Liver, &c., this article acts as a specific. By putting from one-half a paper to a paper in a barrel of swill the above diseases will be eradicated or entirely prevented. If given in time, a certain preventive and cure for the Hog Cholera.

DAVID E. FOUTZ, Proprietor,
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For sale by Druggists and Storekeepers throughout the United States, Canadas and South America.

FINE YOUNG BULLS FOR SALE.

We expect to have for sale in the spring a remarkably fine young AYRSHIRE BULL.
Also some fine young JERSEY BULLS.

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Lime, Bricks, Sash and Mill Work.

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A large and well-assorted stock of READY-MADE CLOTHING always on hand, together with a full line of FURNISHING GOODS.

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FOR SALE,

A VALUABLE AND ATTRACTIVE

FARM ON TIDE WATER, VA.

The subscriber offers for sale his Farm in Northumberland Co., Va., comprising about 1600 ACRES OF LAND situated on the Potomac and Cone Rivers. All the Farm is River-bottom land, adapted to grain and grass culture, and particularly desirable for trucking and fruit raising—the soil being well suited for all kinds of vegetables as well as the staple crops. There are 1000 acres arable land, the balance in valuable timber of all kinds. Attached to the Farm are invaluable Oyster coves, noted as producing the finest Oysters of this section. There is a wharf on the property and three steamers from Baltimore and Washington land there every week, with the prospect of a daily line to Point Lookout, Md.—12 miles across the Potomac—upon the completion of the Southern Md. R. R. The time to either Baltimore or Washington only 8 hours. The improvements consist of a good BRICK DWELLING of four rooms, smoke, dairy and poultry houses, barn, granary and corn cribs, and three outbuildings, of four rooms each, for laborers. The whole place is under good chestnut fencing, and thoroughly drained. The Farm will be sold entire, or if found desirable will be divided into parcels of, say, 50 acres, more or less. It is well situated for such division, and, in that event, will offer very superior inducements to purchasers. Terms will be made liberal. Parties desiring to inspect the land can take the steamers either at Baltimore or Washington, and land on the Farm.

For further particulars, address the Editors of the "American Farmer," Baltimore, or

DR. JAMES SMITH,

Heathsville, Northumberland Co., Va.

The GERRISH CABINET ORGAN,

In Imperial cases, with flexible sliding covers,

New style, and Superior in Tone and Touch to all other Organs. At very low prices. Send for Circulars and Price list to JAMES M. DEEMS, AGENT, corner Baltimore and Paca streets, over the People's Bank, BALTIMORE, MD.

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Guns and Pistols**

With large assortment of
SPORTSMEN'S GOODS.

Guns neatly Stocked and Repaired at

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COMMISSION MERCHANTS for the sale of GRAIN, BUTTER, EGGS, CHEESE, Green and Dried FRUITS, Vegetables and Country Produce generally. Also, an assortment of reliable FIELD and GARDEN SEEDS constantly on hand. Consignments solicited and prompt returns made.

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THOS. NORRIS & SON,
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Would call special attention to the following first-class Machines, &c.:

WESTLINGHOUSE THRESHERS AND CLEANERS.

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OUR NEW ACME PLOUGH.

Bickford & Huffman Grain Drills,

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WITH PORCELAIN-LINED IRON CYLINDERS.

We are prepared to furnish, wholesale and retail, the best and cheapest Cucumber Pumps in the country, to suit all purposes, from the small cistern to the deepest well.

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W. A. WOOD'S WORLD-REOWNED

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WITH AND WITHOUT MOWING ATTACHMENT.

W. A. WOOD'S MOWING MACHINES,

Universally acknowledged as good as, if not superior to, any others in use. The above Machines have taken more FIRST PREMIUMS in this country and in Europe than any other Reaping and Mowing Machines extant. Send for Descriptive Circulars. For sale by

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55 COMMERCE STREET, BALTIMORE, MD.

Commission Merchants & Dealers in Seeds

HAVE ON HAND

Clover, Sapling or English Clover, Timothy, Orchard
and Herds Grass,

feb-3t AND OTHER FIELD SEEDS.

“THE CARROLLTON.”



This new and beautiful Hotel, located upon the site of “Old Fountain Hotel,” extended by an elegant front on Baltimore street, is convenient alike to the business man and the tourist.

It is the only Hotel in Baltimore of the new style, embracing

ELEVATORS, SUITS OF ROOMS, with BATHS,

And all conveniences; perfect ventilation and light throughout, and was planned and built as a Hotel, new from its foundation.

Its elegant and convenient Office and Exchange Room, with Telegraph, &c., will at all times be at the disposal of the merchants and citizens of the city.

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The undersigned refers to his career of over thirty years as a Hotel Manager in New York and Baltimore, and feels confident, that with a new and modern house, he can give entire satisfaction to his guests.

To accommodate Merchants and others who visit Baltimore, the proprietor will charge \$8 per day for the rooms on fourth and fifth floors, making the difference on account of the elevation. Ordinary transient rates for lower floors, \$4 per day.

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Imported directly from the mines, of best quality, and put up in extra strong linen bags. They contain the essential properties of

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are valuable for all crops, and for Grass; especially adapted for Potatoes, Tobacco, Fruit Trees, and Grapes. The KAINIT imported by me is calcined and ground, and contains 30 to 32 per cent. Sulphate Potash, and the MURIATE POTASH is 80 per cent strength. They are CHEAPER than any other Fertilizers.

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WHANN'S RAW BONE SUPER-PHOSPHATE.

THE GREAT FERTILIZER

On COTTON, CORN, TOBACCO, WHEAT, RYE, and on all the staple crops of the country. It has produced unexampled results. In competition with other Fertilizers it has excelled them all, and achieved for itself a reputation of being one of the most reliable manures in the market.

Whann's Raw Bone Super-Phosphate

Is not a mere temporary stimulant, but an active and lasting manure, showing its beneficial effects throughout several seasons. Farmers who have been disappointed in the use of other Fertilizers are invited to give WHANN'S a trial alongside of any manure in the market. Whann's Raw Bone Super-Phosphate is manufactured only by Watton, Whann & Co., Wilmington, Del. For sale at their stores,

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And For Sale by Local Dealers throughout the country.

JOB PRINTING.

We have arrangements by which all kinds of Job Printing can be executed with promptness, accuracy and neatness. Persons in the country needing

Cards, Circulars, Pamphlets, Constitutions of Societies,

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Or any other kind of Printing, in all colors, can have the same executed through this office in the handsomest style, and at the very lowest prices. Orders by mail promptly attended to.

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These brands are prepared from the best materials which can be obtained, and contain in a soluble condition every element necessary to the growth of the plant and the formation of the grain. Rich in Ammonia, Soluble Phosphates and Potash—always in fine dry condition for the drill. Orders respectfully solicited. We also deal in KAINIT, (Potash Salts,) which we recommend as a top-dresser for all crops, in addition to Phosphates or Bone.

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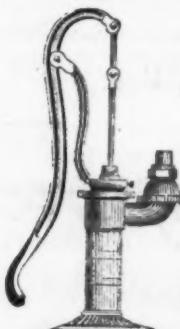
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Having experienced workmen in our employ, any work entrusted to our care will be promptly and satisfactorily done.

We have the privilege to refer to the following gentlemen as to our capability to do the above work: Hon. Andrew Johnson, Hon. Henry G. Davis, Hon. Wm. Pinkney Whyte, Francis T. King, Esq., J. H. B. Latrobe, Esq., Samuel G. Wyman, Esq., William G. Harrison, Esq., William W. Taylor, Esq., John Gregg, Esq., Wm. F. Burns, Esq., J. W. Allnutt, Esq., Messers. Baldwin & Price, Architects.

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THE AMERICAN FARMER.

ESTABLISHED 1839.

TO FARMERS, PLANTERS and GARDENERS

Pure Ground Bone

MANUFACTURED BY

JOHN BULLOCK & SON,

Factory: Washington Road, Baltimore, Md.

Store: No. 61 S. Gay Street, Baltimore, Md.
P. O. Box 636.

PACKED IN BARRELS OR BAGS, \$45 PER TON.

For the past thirty years we have been engaged in the manufacture of PURE GROUND BONE, our crude stock being gathered daily from the Butchers here, with whom we have yearly contracts. Having recently added additional and improved machinery, we are now prepared to fill all orders in our line with promptness and despatch. Would respectfully call attention to the annexed certificate:

BALTIMORE, March 1st, 1873.

Messrs. JOHN BULLOCK & SON, Baltimore, Md.

Gents—The following is the result of an analysis of your Ground Bone:

	PER CENT.
Moisture determined at 212° Fahrenheit,	5.44
Organic Matter,	39.16
Containing Nitrogen, 4.47 per cent., equal to Ammonia, 5.42 per cent.	
Inorganic Matter,	55.40
Containing Phosphoric Acid, 22.15 per cent., equal to Bone Phos. of Lime, 48.35 percent.	
Alumina, Oxide of Iron, and Carbonate and Fluoride of Lime not determined.	
Insoluble Residue, 3.61 per cent.	
	100.00

I am pleased to state that this is one of the richest and most available forms of Phosphate of Lime and Ammonia that can be found for agricultural purposes. The per centage of valuable ingredients named is in excess of the generality of fertilizers now being offered for sale. Respectfully, &c.,

P. B. WILSON,

Analytical and Consulting Chemist.



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A. B. FARQUHAR,
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The Pennsylvania Agricultural Works is one of the most extensive establishments of its kind in the United States. It is furnished with improved Machinery, Foundry, Forging Rooms, Planing and Sawing Mills, Lumber Yard, &c., complete within itself. It is situated among the great Iron, Coal and Lumber fields, which form the basis of all manufacturing; and I would respectfully call the attention of the public to these advantages, confident of meritng an extended patronage.

The following are among the specialties:

**AGRICULTURAL STEELS, PLOWS, CULTIVATORS, HORSE RAKES, PLOW HANDLES, THRESHING MACHINES,
HORSE POWERS, &c.**

HORSE POWERS.

The Horse Power is one of the most important implements, and probably the most difficult to keep in order; too much care, therefore, cannot be used in selecting the very best.

I have long made the manufacture of Horse Powers a specialty, and can safely recommend my improved Iron Geared Powers to be all that I claim for them.

FARQUHAR'S CLIMAX HORSE POWER,

For Threshing, Ginning and General Farm Use,

ranks first; being the result of many years' labor, "practice with science," and the expenditure of thousands of dollars in experimenting.

It is remarkable for its light draft, simplicity, great strength and durability. It is fitted up with as much care as a piece of cotton machinery or steam engine, and will last as long. The rule, the "best is the cheapest," applies with special force to Horse Powers.

THE PELTON OR TRIPLE-GEARED IRON POWER.

This well known power is noted for its strength, cheapness and general efficiency. Like the Climax, the gearing is all secured in an iron frame, and is uninjured by the weather. The pinions are made of chilled iron, and no pains are spared to make it a first-class, cheap power.



Improved Railway Horse Powers, Threshers and Separators,

Have been a specialty with me for many years, and those who favor me with their orders may rely upon getting a machine which will run as light, waste less grain, and give more general satisfaction than any offered.

PLOW HANDLES.

Having improved Blanchard machinery for the manufacture of Plow Handles upon an extensive scale, I can supply first quality Handles, side bent to order for any pattern of plow.

For further particulars, address

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STANDARD SCALES.

FAIRBANKS'



Hay, Stock and Cattle Scales.

CAUTION!

The well-earned reputation of our SCALES has induced the makers of imperfect Balances to offer them as "Fairbanks' Scales," and purchasers have thereby, in many instances, been subject to fraud and imposition. If such makers were capable of constructing good Scales they would have no occasion to borrow our name.

Buy only the Genuine Fairbanks' Standard Scales.
STOCK SCALES, COAL SCALES, HAY SCALES, DAIRY SCALES, PLATFORM SCALES,
COUNTER SCALES, &c.

FOR SALE ALSO, ALARM CASH DRAWER.

Till-Tapping Prevented!

Every Drawer WARRANTED!

**EVERY MERCHANT
SHOULD USE THEM.**

Sold at all Fairbanks' Scale Warehouses.

FAIRBANKS & CO.,

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Dealer in Flour, Meal, Grain and Feed, Hay and Straw, Dried Fruit, Butter and Cheese, Guano
and other Fertilizers: also Lumber, Staves and Tan Bark.

Consignments of produce, &c., respectfully solicited. Our charges are only the customary commission and the legitimate expenses of transportation and handling in the city.
20,000 bushels of ASHES on hand.

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No. 45 W. Pratt Street, Baltimore, Md.

ORCHILLA GUANO, AA, A TRUE BIRD GUANO,

Rich in Phosphates and Alkaline Salts,

From Orchilla Island in the Caribbean Sea, belonging to Venezuela, Lat. 11° 50' N., Lon. 66° 14' W.

Packed in GOOD BAGS, 167 lbs. each, 12 to the Ton,
\$30 per Ton, Cash.

B. M. RHODES & CO., Agents for the Sale of Orchilla Guano,
Office, 82 SOUTH STREET, below Corn Exchange,

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BALTIMORE.

IMPORTANT IMPROVEMENT IN FERTILIZERS.

GERMAN POTASH SALTS,

Imported directly from the mines, high and low tests.

Orders of Manufacturers promptly executed in deliveries to suit.

STOCK ON HAND FOR SALE VERY CHEAP.

Muriate of Potash, Kainit, &c.

Also for sale, GROUND BONE, guaranteed strictly pure, testing 4 112 Ammonia, 47 010 Bone Phosphate of Lime, GUANO, &c. PLEASE CALL FOR CIRCULARS.

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D. KNOX, late of R. Sinclair & Co.

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DEALERS IN

AGRICULTURAL IMPLEMENTS AND MACHINERY.

GROWERS AND IMPORTERS OF

Garden, Field and Flower SEEDS, Trees, Plants, Fertilizers, &c.
Agents for DOTY'S WASHING MACHINES, CUCUMBER PUMPS, MONTGOMERY'S WHEAT FAN,
"SUPERIOR" MOWER AND REAPER.

No. 2 Howell's Block,

CAMDEN STREET, NEAR SHARP, BALTIMORE, MD

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THE AMERICAN FARMER.

GROVER & BAKER SEWING MACHINE COMPANY,

17 N. Charles Street,
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Buy one of their improved
“LOCK STITCH” or “ELASTIC STITCH”
Sewing Machines,

THE VERY BEST IN USE.

They combine the elements of
BEAUTY,
DURABILITY,
SIMPLICITY AND
USEFULNESS.

Either style embodies all the latest and most useful attachments and improvements.

The Grover & Baker Sewing Machine Company,

Is the only Company that afford the purchaser a Choice of Stitch.
They make Two Distinct Machines,

“Elastic” and “Lock-Stitch.”

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CANFIELD, BRO. & CO.
WATCHES,
DIAMONDS AND RICH JEWELRY,
SILVER AND PLATED WARE,
American, English and Swiss Watches,
GOLD, JET, TORTOISE SHELL, CORAL AND VULCANITE
JEWELRY,
CLOCKS AND BRONZES, LEATHER GOODS,
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THE LARGEST HOUSE IN THE CITY.

PREMIUMS FOR AGRICULTURAL FAIRS FURNISHED.

BADGES AND MEDALS FOR COLLEGES AND SCHOOLS A SPECIALTY.

WATCHES CAREFULLY REPAIRED.

CANFIELD, BRO. & CO.,

Corner Baltimore and Charles Streets, Baltimore, Md.

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V. O. EARECKSON,
LUMBER DEALER.
West Falls Avenue, first Yard South of Pratt St. Bridge.
Building Lumber, Shingles, Laths, Palings,
FENCING, &c.
LIME, BRICKS, SASH, DOORS AND MILL WORK
may-1y AT THE LOWEST PRICES.

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PORTABLE GAS! PORTABLE GAS!
KUSTER'S NON-EXPLOSIVE GASLIGHT FLUID!

Cheapest, Safest and best Light in the World, giving a light equal to Coal Gas at the cost of one-half cent per hour! The Lighting of CHURCHES, HALLS and STORES a SPECIALTY. The **Petroleum Fluid Stove** is found superior in the satisfactory and rapid manner in which it does its work—always ready and under momentary control. For broiling Steak, Fish or Game it is unsurpassed. For Baking of Bread, Cakes and Pies, no oven with any other fuel in the world equals it. *Call and see for yourselves.*

C. F. KUSTER, { Successor to F. G. PALMER, and
late U. S. Portable Gaslight Co.,
No. 9) South Gay Street, Baltimore, Maryland.

THE AMERICAN FARMER.



HOUSE FURNISHING GOODS

FORWARDED AND PACKED
WITH
GREAT CARE
BY
SAMUEL CHILD & CO.

20 N. CHARLES STREET.

IMPORTERS OF CHINA, GLASS, TABLE CUTLERY,
FAMILY HARDWARE, PLATED GOODS, AND
Dealers in TIN, WOODEN and JAPANNED
WARE and KITCHEN FURNITURE
of every character.

WATER COOLERS of our own make. ICE-CREAM
FREEZERS of the most approved kinds. PATENT ICE
PITCHERS, all qualities, and each warranted to be as
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New and Beautiful Patterns of

ENGLISH, FRENCH AND AMERICAN

TABLE GLASSWARE.

WHISKEY, BRANDY AND
WINE DECANTERS,
SINGLE AND IN SETS.

BOWLS, DISHES, CELERY STANDS, &c.

Our arrangements made in person with the leading manufacturers in Europe and this country, and having resident agents in France and England, give us every advantage in obtaining our supplies; manufacturing the common class of goods, such as

TIN AND JAPANNED WARE;

Buying entirely for cash; with a thorough knowledge of the business in all its details; purchasers may rest assured that we can and will supply their wants as favorably and upon as good terms as any house in New York or elsewhere.
We respectfully solicit a visit and an examination of goods and prices.

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Owners and Manufacturers

OF THE

New Iceland Refrigerator.

MONUMENT IRON WORKS.

DENMEAD & SON,

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MANUFACTURERS OF STATIONARY AND PORTABLE

Steam Engines and Boilers

OF ALL SIZES.

DAVID'S PATENT PULVERIZING MILLS[®], for Guanos, Bones, Ores, Clays;
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SEND FOR CIRCULAR.

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GENERAL AGENT FOR
THE KIRBY MOWERS AND REAPERS,

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Light street,
BALTIMORE,
MARYLAND.

55

Light street,
BALTIMORE,
MARYLAND.



The KIRBY COMBINED REAPER AND MOWER with BALTIMORE SELF-RAKE received FIRST PREMIUM at Carroll County, Frederick County and Montgomery County, Md., FAIRS, October, 1873. The BURDICK INDEPENDENT REAPER with BALTIMORE SELF-RAKE received FIRST PREMIUM and DIPLOMA at Maryland State Fair, 1873. The KIRBY Two-WHEEL MOWER was awarded the FIRST PREMIUM at Carroll County, Frederick County and Montgomery County, Md., Fairs; and also, at Leesburg, Va., Fair, 1873.

SIMPLE, STRONG AND DURABLE.

POSITIVELY NO SIDE DRAUGHT, NO WEIGHT ON THE HORSE'S NECK. Extras and repairs constantly on hand. Send for Circular and Price-List. Also, DEALER IN ALL KINDS OF

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FARMERS SAVINGS BANK!!
KNICKERBOCKER
LIFE INSURANCE CO.
OF NEW YORK.

ASSETS \$8,300,000.

ALL KINDS OF POLICIES ISSUED.

SAVINGS BANK INSURANCE A SPECIALTY.

Every Policy shows its cash surrender value at the end of the First, Second, Third and every year of the continuance of the Policy.

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Payable at Death or 75—Age 40, \$1000. Premium \$34.01. Cash surrender value at end of second year, \$18; at end of third year, \$35.56.

We respectfully call the attention of the public to the above card, and can assure them that no other Company offers so great an inducement for the investment of their money where so large a return is guaranteed, and brings LIFE INSURANCE WITHIN THE REACH OF ALL.

Parties desiring information or insurance in this Company will address or call upon the undersigned, who will take pleasure in furnishing it.

nov-1y

WM. E. BROWN & CO., Gen'l Agents, 22 Second St., Baltimore.

THE AMERICAN FARMER.

Seasonable Agricultural Implements & Machinery

R. SINCLAIR & CO.,

62 LIGHT ST., BALTIMORE, MD.

MANUFACTURERS OF ALL KINDS OF

FARM MACHINERY

AND

Agricultural Implements

AND GROWERS AND IMPORTERS OF

Garden and Field Seeds, &c.,

OFFER FOR SALE A LARGE STOCK OF

LABOR-SAVING IMPLEMENTS AND MACHINERY.

Including in part, as particularly suitable for the coming Harvest,

The "Advance Mower" or "Improved Monitor,"

The simplest, strongest and most efficient Mower in the country.

The "New Yorker" Self-Rake Reaper and Mower and Reaper only.

Reapers of the most approved and Improved Patterns always on hand.

ITHICA SULKY SELF-DISCHARGING HAY AND GRAIN RAKE, the best in use
"PHILADELPHIA" HAND AND HORSE MOWERS,

ROGERS' PATENT HARPOON HORSE HAY RAKE.

"BUCKEYE" SULKY CULTIVATOR, for Corn, Tobacco and Cotton.

SINCLAIR'S SOUTHERN IRON BRACE GRAIN CRADLES.

HAY TEDDERS, most approved patterns.

THOMAS' SMOOTHING HARROWS, for cultivating Corn, &c.

Also an unusually large and varied stock of well known and thoroughly tested MACHINES, and IMPLEMENTS, which we guarantee to give satisfaction to Farmers and Planters.

R. SINCLAIR & CO.,

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62 Light street, Baltimore.

THE AMERICAN FARMER.

MACKENZIE BROS.,

Importers, Manufacturers and Dealers in
**SADDLERY HARDWARE
AND COACH FURNITURE,**

*Oils, Paints, Varnishes, Iron and Steel Carriage Bolts,
Horse-Covers, Lap Rugs and Fly Nets,
Saddle-Trees, Wood Stirrups, Gum Horse Covers.
Depot and Baltimore Agents for Philadelphia
Axle Works and Henry's Patent One-Plate Springs.*

338 W. BALTIMORE STREET,

dec-ly

Baltimore, Maryland.

ESTABLISHED 1835.

GEORGE W. WEBB, GOLDSMITH & JEWELLER, S. E. Corner Light and Baltimore Streets,

IMPORTER AND DEALER IN

**FINE WATCHES, RICH JEWELRY,
STERLING SILVER AND PLATED WARE.**

Every attention paid to neatness and durability in the manufacture and repair of Jewelry. Fine Watches repaired by experienced workmen. Hair Braiding in all its varieties. Orders attended to with despatch. dec-ly

WE HAVE HESITATED ABOUT BREAKING THE MARKET, BUT THERE IS NO HELP FOR IT. WE HAVE OVER \$100,000 IN MEN'S AND BOY'S

CLOTHING AND GOODS FOR MEN'S WEAR,

And we cannot afford to carry them. Good times are coming, but we cannot sell Winter Clothing in Summer time, any more than people can wear Summer Clothing in Winter time; and besides, we will not allow our stock to become old.

J. H. SMITH & CO.

MARBLE HALL BUILDINGS, N. E. COR.
BALTIMORE AND FREDERICK STREETS.

dec-ly

BRAHMA CHICKENS.

For sale a few pairs or trios of DARK BRAHMA FOWLS and a few EXTRA COCKS; also, a few pairs or trios of LIGHT BRAHMA FOWLS and a few EXTRA COCKS, bred from choice fowls.

JOHN M. GRIFFITH,
41 and 45 N. Pace Street,
BALTIMORE.

EGGS from either of the above for sale. Jan-3t

S CALES. — Every farmer should have a pair of scales. We can furnish them to weigh a quarter of an ounce up to the largest hay wagon, on very liberal terms, at the American Farmer office. Jan-3t

Pure Essex Pigs,

Bred from stock which I have recently imported direct from England and Canada; also,

Light Brahma, White Leghorn and Game Dominique Fowls,

Each variety bred from the purest stock in this country, and warranted to be first-class in every respect. All for sale on reasonable terms for Breeding or Exhibition purposes.

T. J. Wooldridge, M. D.,
French Hay P. O., via Glen Allen, Va.
oct-6t

THE AMERICAN FARMER.

**THE
BAB COCK
AND WILCOX
PATENT SAFETY STEAM
BOILERS.
LEFFEL'S
AMERICAN
DOUBLE
TURBINE
WATER WHEEL.
PORTABLE
AND STATIONARY
STEAM
ENGINES & BOILERS
SAW & GRIST MILLS
MILL GEARING, SHAFTING, PULLEYS
& HANGERS, MANUFACTURED BY
POOLE & HUNT,
Send for Circulars { BALTIMORE, MD.**

TREES AND PLANTS.
Rosebank Nurseries,

Gorans'town, Balt. co., Md.

We invite the attention of Planters and Amateur Cultivators to our complete stock of the following:
PEARS, Standard and Dwarf.

APPLES, Standard and Dwarf.

CHEERRIES, Standard and Dwarf.

PEACHES, PLUMS and GRAPE VINES, together with other SMALL FRUITS of popular kinds.

ORNAMENTAL TREES, EVERGREENS and SHRUBS, with ROSES in great variety. A large stock of choice GERANIUMS, VERBENAS, and other bedding-out plants.

75 to 100,000 two and three year old OSAGE ORANGE HEDGE PLANTS.

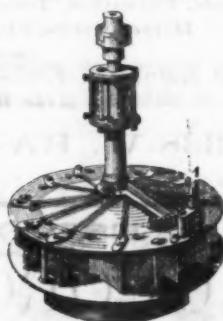
ORDERS BY MAIL promptly attended to.

Catalogues forwarded on application.

sep-17

W. D. BRACKENRIDGE.

**LEFFEL'S
AMERICAN
Double Turbine Water Wheel
Power Pledged Equal to
any Overshot.**



OVER 6,000

NOW IN USE.

oct-17

RHODODENDRONS,

Camellias, Chinese Azaleas and Hardy Evergreens, Deciduous Trees and Shrubs, with Roses.

For Catalogues apply to

S. B. PARSONS & SONS,

nov-7

Flushing, N. Y.

LAND MUST BE CLEARED

To make room for my immense spring planting. The best opportunity ever offered to those who want to plant Apples. I now offer

200,000 No. 1 APPLE TREES,

three years old, six to eight feet high, thrifty stock, all warranted true to name. This stock must be sold as above, to clear the land. I therefore offer it as follows, at one-third the usual retail price:

12 cents each, \$10 per hundred, \$80 per thousand.

Orders by mail will receive prompt attention.

Catalogues of Apples and other Fruits sent free on application.

RANDOLPH PETERS,

Great Northern and Southern Nurseries,

Wilmington, Del.

feb-27

THE AMERICAN FARMER.

IMPORTANT TO FARMERS.

J. G. HEWES'

Ammoniated Bone Super-Phosphate of Lime,

Manufactured and Sold by JOHN G. HEWES,

Office and Warehouse, 370 WEST PRATT ST., BALTIMORE, MD.

Also, PERUVIAN GUANO, and Bones of all grades.

July-ly

Washington Life Insurance Co. OF NEW YORK.



CYRUS CURTISS.....	PRESIDENT.
Assets January 1, 1873.....	\$3,426,203 27
Liabilities—Cash reserved for Policies, \$2,913,102 00	
Liabilities for Claims due, 70,141 74	2,983,243 74

SURPLUS..... \$442,959 53

PLAN OF BUSINESS.

Premiums required in Cash.
Dividends are non-forfeitable and are paid in Cash.

Assets are held in Cash.

Polices are paid in Cash.

The first question for a prudent man to ask, in determining the
merits of an Insurance Company, should be: Is it trustworthy and
responsible? The entire history of this Company has shown
that its solidity is unquestioned; no imputation to the discredit
of its management having ever been uttered.

DAN'L GRANT EMORY,

Manager for Maryland and District of Columbia,
my-ly 32½ ST. PAUL STREET, BALTIMORE, MD.

B. T. HYNSON & SONS, Paper Hangings and Window Shades, WINDOW AWNINGS, MOSQUITO AND FLY-NETS.

Wall Papers and Window Shades of all grades and styles. Workmen sent to all parts of the country. Just received a choice assortment of different styles. Venitian Blinds made and repaired.

B. T. HYNSON & SONS.

sep-ly

No. 54 N. Howard St., Baltimore, Md.

VIRGINIA LANDS.

UPPER JAMES REAL ESTATE AGENCY,

BY WILLIAM HOLMAN,
CARTERSVILLE, Va.

Who offers for sale upwards of 12,000 acres of land,
lying in one of the most desirable regions of Eastern
Virginia.

Catalogues sent on application.

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SMITH & CURLETT,

Steam Soap & Candle Works,

PERFUMED CHEMICAL OLIVE SOAPS,

ADAMANTINE and TALLOW CANDLES,

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feb-ly

BALTIMORE, MD.

THE AMERICAN FARMER.

R. J. BAKER.

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R. J. BAKER & CO.,
IMPORTERS AND DEALERS IN
DYE-WOODS, DYE-STUFFS,
OIL VITRIOL,
PURE GROUND BONES AND CHEMICALS,
FOR MAKING
SUPER-PHOSPHATES AND FERTILIZERS,

Glue, Indigo, Madder, Bi-Carbonate of Soda, &c.

Nos. 36 and 38 South Charles Street,
BALTIMORE, MD.

WILSON & CO.,
63 SECOND STREET, BALTIMORE,
MANUFACTURERS OF
FIRE AND WATER PROOF
IMPROVED PLASTIC SLATE ROOFING
AND DEALERS IN
ENGLISH ROOFING FELT.

The PLASTIC SLATE IMPROVED, as a roofing material, stands unrivalled. As a mastic it adapts itself to every SHAPE and SLOPE, NON-COMBUSTIBLE, IMPERVIOUS, NON-EXPANSIVE and UNDECAYING. FROST does not CRACK nor HEAT DISSOLVE it, possessing all the advantages of a sheet slate roof without its joints and crevices. Perfectly FIRE PROOF, and insures at same rates as slate or metal roofs. It is unequalled as a coating for RAILROAD and FARM BUILDINGS.

LEAKY SHINGLE ROOFS.

It frequently happens that house owners wish to avoid the expense of taking off shingles and running the risk of uncovering the house. To accomplish this we recommend the use of the **ENGLISH ROOFING FELT**, which by far supercedes the common tarred paper. It has been proved by experience that roofs covered in this manner will stand for YEARS in places where other roofing materials have FAILED.

OLD METAL ROOFS can be covered with this material, making them to last many years, and more durable than several successive coats of paint, at half cost of a new roof.

FOR DAMP WALLS, as a remedy, it is unequalled and an entire success.

Orders for shipping promptly attended to.

WILSON & CO.,
No. 3 Rialto Building,
63 SECOND STREET, BALTIMORE.

jan-ly

THE AMERICAN FARMER.

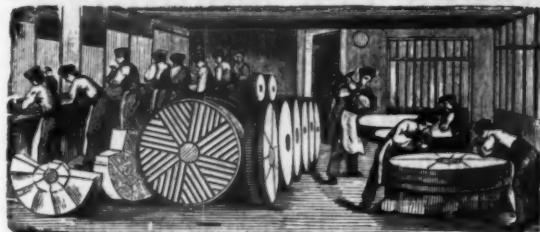
MORO PHILLIPS' GENUINE IMPROVED **SUPER-PHOSPHATE OF LIME.** STANDARD GUARANTEED.

Reduced in price, and improved in quality by the addition of Potash. This article is already too well known to require any comments upon its Agricultural value. Thirteen years' experience has fully demonstrated to the agricultural community its lasting qualities on all crops, and the introduction of Potash gives it additional value.

PRICE \$50 PER TON, 2,000 LBS. Discount to Dealers.

PURE PHUINE. SUPERIOR TO PERUVIAN GUANO. Patented April 29, 1860. Manufactured by MORO PHILLIPS. PRICE \$50 PER TON, 2,000 LBS. Discount to Dealers. For sale at Manufacturer's Depots: 110 S. DELAWARE AV., Philadelphia, Pa. 95 SOUTH STREET, Baltimore, Md.

And by Dealers in general throughout the country. Pamphlets mailed free on application.
MORO PHILLIPS, Sole Proprietor and Manufacturer.



Best quality ANKER BRAND, by the piece or cut to order, and sent by express to any Station or Steamboat or Railroad lines. SMUT MACHINES, BELTING and Mill Furnishing Goods generally.

ap-ly
WEST FALLS AVENUE.
NEAR PRATT STREET BRIDGE.

BALTIMORE RETORT AND FIRE BRICK WORKS. GEORGE C. HICKS & CO. MANUFACTURERS OF CLAY RETORTS, TILES, FIRE BRICK, VITRIFIED STEAM-PRESSED Drain and Sewer Pipe, Stove Lining, &c.

ap-ly *Manufactory, Locust Point, Balt. Office, 4 S. Holliday St.*

DANA BICKFORD'S NEW IMPROVED FAMILY KNITTING MACHINE

Perfection in work and simplicity of construction have been attained in this Machine. It knits both circular and flat web with perfect selvage edge, making a perfect hand-stitch. It narrows and widens, knitting heels and toes of stockings to perfection, with ribbed or plain stitch, and is a Crocheting as well as Knitting Machine. It makes all the intricate fancy stitches of the crocheting-needle better than hand-work. It is so simple that a child can operate it, and the rapidity of its work is truly wonderful—20,000 stitches per minute.

This Machine has carried the FIRST PRIZE at the Maryland State Fair, Maryland Institute and Virginia State Fair this Fall, and was the principal attraction at all of them. They are more valuable in the Family than the Sewing Machine. Price \$25 and \$35. Send for Circum-
lars. Agents wanted in every part of Maryland. Liberal terms. Address,

J. A. HAMILTON, General Agent for Maryland.
47 NORTH CHARLES STREET, Baltimore.

MORRIS & TRIMBLE, Proprietors of the old original Baltimore Burr Mill- stone Works, Established 1815. Importers, Manufacturers and Dealers in French Burr and other MILLSTONES, BOLTING CLOTHS,

ap-ly

WEST FALLS AVENUE.
NEAR PRATT STREET BRIDGE.

THE CHAMPION EARTH CLOSET.

Having selected the new CHAMPION as being the very best and cheapest EARTH CLOSET made, and accepted the Agency of it, I am now ready to furnish the same with five styles.

No farmer or person living in villages can afford to be without the Earth Closet. Looked at in the light of convenience, comfort and economy, it is far beyond the water closet, having all the advantages of the city water closet and none of its disadvantages, being perfectly without odor.

Send for Price-List and Circular to

J. A. HAMILTON,
47 N. Charles Street,
BALTIMORE.

THE AMERICAN FARMER.

JOHN D. HAMMOND.

HENRY A. ANTHONY.

JOHN D. HAMMOND & CO.

**Saddle, Harness, Trunk and Collar
Manufacturers,**

WHOLESALE AND RETAIL.

No. 361 W. Baltimore Street, opposite "Eutaw House,"
BALTIMORE.

sep-1y

A. E. WARNER,

Manufacturer of

**Silver Ware, Rich Jewelry,
Watches, Diamonds, Jewelry, Silver Ware.**

Importer and Dealer in

Diamonds, Fine Watches, Silver Plated Ware, Table Cutlery,
Fancy Articles, &c.

No. 135 W. BALTIMORE STREET, BALTIMORE, MD.

FINE BRONZES AND OPERA GLASSES. SOLID SILVER WARE OF OUR
je-1y OWN MANUFACTURE.

HARRINGTON & MILLS,

Nos. 204 & 206 BALTIMORE STREET, BALTIMORE, MD.

Manufacturers and Importers of

Fine Furniture, Looking Glasses, Gilt Frames, Curtains and Draperies.

We call particular notice to our large stock of **CANE FURNITURE**, embracing
Chairs, Tables, Lounges, &c., &c.; being particularly suitable for country residences, and adapted,
from its lightness and coolness, for Southern latitudes.

A large stock of Fine Furniture constantly on hand and made to order.

may—1y.

**MARYLAND BRITANNIA
AND
GOLD AND SILVER PLATE WORKS.
ESTABLISHED 1850.**

W M. HOLMES,

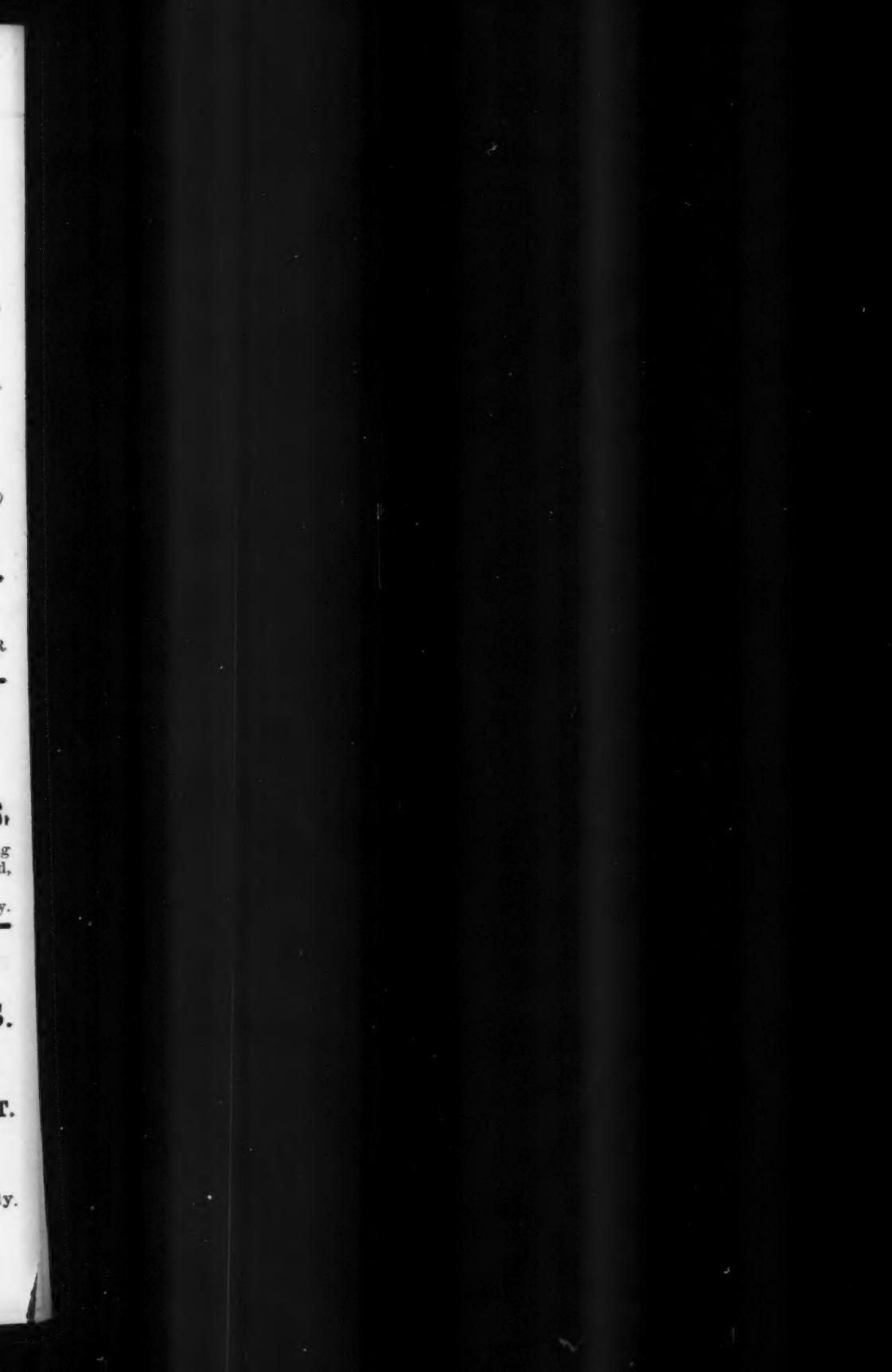
SALES ROOM.....No. 3 NORTH CHARLES STREET.

Office and Factory, Nos. 50 and 52 Holliday Street,

BALTIMORE, MD.

~~Rep~~pairing and Replating done "as soto look equal to new ware."

may—1y.





Established 1856.

LARMOUR & CO.

DEALERS IN

GOLD AND SILVER WATCHES,

RICH JEWELRY, SOLID SILVER WARE,
TRIPLE-PLATED WARE, CLOCKS, BRONZES, &c.

Agents for the American Watch Co. of Waltham.

In our stock can be found WATCHES from the most celebrated makers of EUROPE as well as from the widely known AMERICAN factories; JEWELRY of every description, in

DIAMONDS, PEARLS, CAMEOS, &c.

SOLID SILVER WARE of chaste styles, suitable for Wedding Presents and for Prizes for Agricultural and Horticultural Societies; **SILVER PLATED WARE** of the best manufacture; **Fine Table Cutlery, &c.**

Also Agents for the celebrated "DIAMOND" SPECTACLES and EYEGLASSES, the most perfect in the world.

(Sign of the Big Clock.)

LARMOUR & CO.

195 West Baltimore Street, Baltimore, Md.

WATCHES and JEWELRY repaired in the best manner and warranted.

May-ly



We will purchase and have carefully shipped, by whatever mode of transportation may be designated:

FERTILIZERS of every description sold in this market—and there is, probably, no other city in the Union which offers better facilities for this purpose. We will buy, and deliver from the Peruvian Agent's Warehouses, whenever the order is sufficiently large to warrant it,

PERUVIAN GUANO.

Also the various **PHOSPHATIC GUANOS** imported into this port; **BONE DUST** from the best manufacturers of this vicinity or the cheaper kinds from a distance, as may be ordered by the purchaser;

Land Plaster, Oil Vitriol, and all Chemicals Required

In the manufacture of HOME MANURES or SUPERPHOSPHATES, from the most reliable factories.

FRUIT and ORNAMENTAL TREES, SHRUBBERY, Field, Garden and Flower SEEDS.

All kinds of AGRICULTURAL IMPLEMENTS and MACHINERY at manufacturers' prices. Likewise,

Cattle, Horses, Sheep, Pigs, Poultry, &c.

Of the improved breeds. In this vicinity, in some particular kinds of stock, a better selection can be made than elsewhere, and special attention will be given to buying and forwarding such animals as may be ordered.

TERMS CASH (or its equivalent.)

Sam'l Sands & Son,

No. 9 North St., near Baltimore St., Baltimore, Md.

THE NEW LIGHT-RUNNING

"HOWE"



SEWING MACHINE

HAS JUST BEEN AWARDED THE

HIGHEST PREMIUM!

AT THE

Vienna Exposition,

FOR ITS SUPERIOR SEWING & STITCHING!

GENERAL OFFICE FOR THE STATES OF

Maryland, Virginia, N. Carolina, S. Carolina:

38 N. Charles St.

BALTIMORE, MARYLAND.

AGENTS WANTED in every County of the above States.

Liberal inducements and large pay to energetic men.

Wagons furnished and no Capital required.

Machines Sold on Easy Terms.

APRIL, 1874.

THE AMERICAN FARMER

ESTABLISHED
1810

PUBLISHED
BY
SAM. SANDS & SONS
BALTIMORE, MD.

\$1.50 A YEAR.

OFFICE, No. 9 NORTH STREET,
Near Baltimore St.

COTTON PLANTING OF '74.

HORNER'S MARYLAND SUPER-PHOSPHATE,

Prepared especially for COTTON from most concentrated materials.

HORNER'S MARYLAND, for Cotton-growing States, is composed of the following ingredients:

Best Peruvian Guano,	750 lbs.
Bone Dust and Concentrated Animal Matter,	1,100 "
Muriate of Potash,	150 " 2,000 lbs.

45 628 of Bone Phosphate,
17. Immediately Soluble,
4.50 Ammonia.

Fine and dry and in best Chemical and Mechanical condition of any other Fertilizer made, at home or abroad. EXCELLENT DRILLING ORDER, ETC.

\$50 per ton, in bags.

JOSHUA HORNER, Jr., Baltimore, Md.

BONE DUST AND BONE MEAL.

From Slaughter-House Bones. 25 years the Standard for Purity and Excellence.

Prof. Tonry and Prof. Wilson render the following analyses of my Bone Dust:

Moisture,	7.52
Organic Matter and Carbonic Acid,	29.94
Lime,	30.47
Phosphoric Acid,	29.16
Bone Phosphate of Lime,	59.63
Insoluble Residue,	2.90
Ammonia,	3.49

WILLIAM P. TONRY, Analytical Chemist.

CHEMICAL LABORATORY OF P. B. WILSON,

No. 32 SECOND STREET.

BALTIMORE, JULY 30TH, 1873.

JOSHUA HORNER, JR.

Dear Sir—The following is the result of analysis of a sample of your Bone Dust, drawn by myself from a lot of 7 tons lying in your warehouse:

Moisture, (deter. at 212° F.)	3.74 per cent.
Organic Matter,	40.12 "
Containing—Nitrogen 4.03; Ammonia 4.95.	
Inorganic Matter,	56.14 "
Containing Phosphoric Acid,	24.52 per cent.
Containing Bone Phosphate of Lime,	53.52 "
Insoluble Matter,	2.51 "

This is the best sample of BONE DUST I can find in the market, and call your especial attention to the large percentages of valuable material for the improvement of the soil, and to the small percentages of moisture and insoluble matter.

Respectfully, etc.,

P. B. WILSON, Analytical and Consulting Chemist.

Prepared for Drilling, and packed in Bags, 167 lbs. each, at \$45 per ton.

If, upon the most searching analysis, any admixture or adulteration whatever be found in my Bone Dust, I forfeit the entire price.

My reputation of twenty-five years standing for pure and unexcelled manufactures, precludes the necessity of publishing certificates, besides which, the consumer has to depend upon the character of the manufacturer, rather than upon the merits of any particular issue of Fertilizer, as unprincipled parties may manufacture a good article for the purpose of obtaining Certificates, and the next year fabricate an entirely worthless article.

Respectfully,

JOSHUA HORNER, Jr.

54 S. Gay St., Baltimore.

No. 1 Peruvian Guano and Chemicals for Fertilizing purposes constantly on hand.

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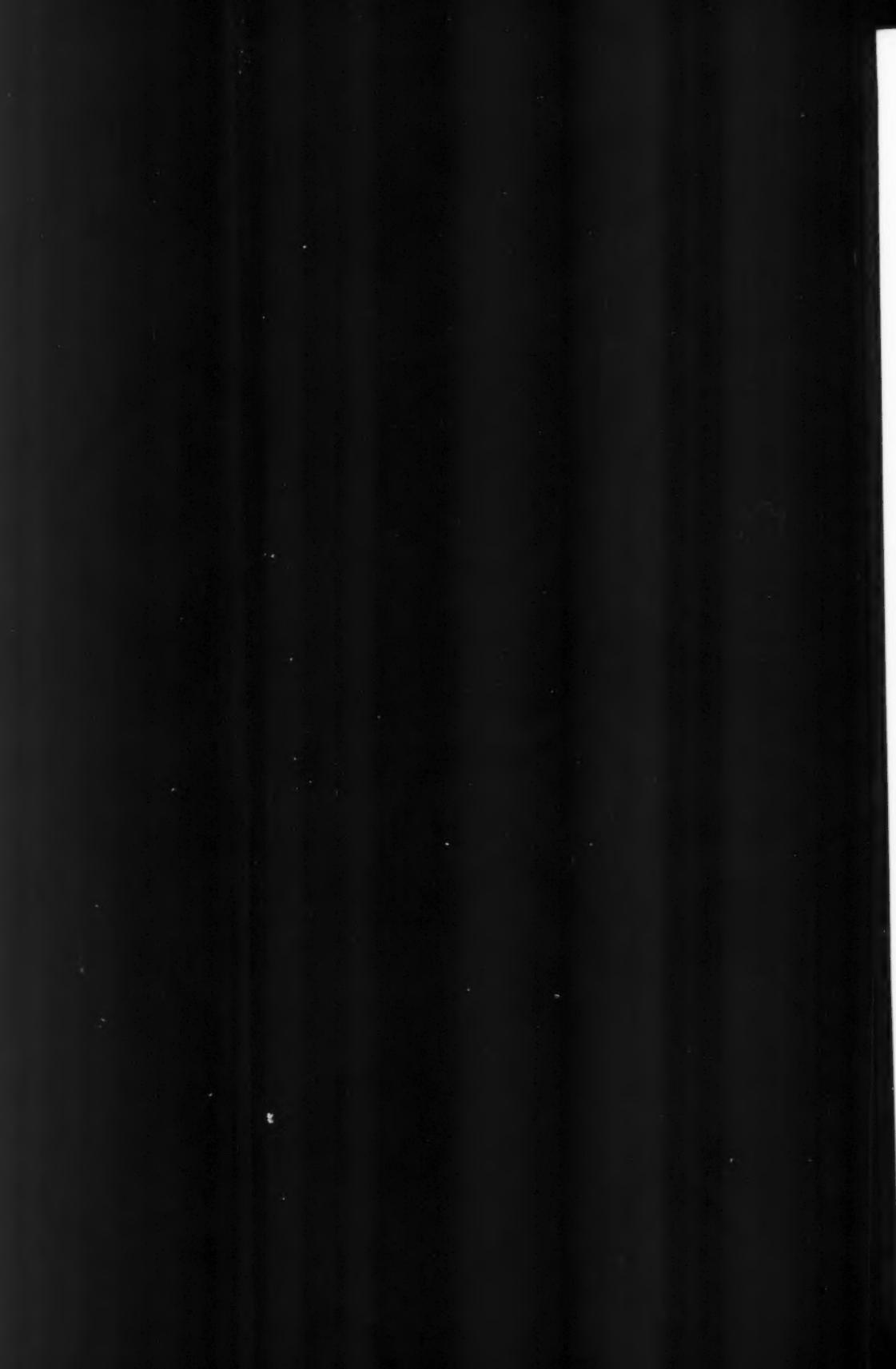
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THE AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS."

Virg.

PUBLISHED BY SAM'L. SANDS & SON, BALTIMORE, MD.

VOL. III.—No. 4.]

APRIL, 1874.

[NEW SERIES.

Horticulture.

Variation in the Season of Ripening of Peaches—its cause and its remedy.

[The communication below needs no preface from us to commend it to the attention of our readers. The subject is one coming home to every grower of peaches for market. The fact of the gradual lessening and the final disappearance of the intervals between the ripening of kinds planted to succeed each other, is one which has become apparent to all our cultivators, and the evil has been very seriously felt for years,—never perhaps having occasioned so much inconvenience and loss as in the year 1872. Then almost all differences of season appeared obliterated, and varieties whose period of ripening usually extended over at last three weeks time, seemed to come in together.

We are glad so intelligent an observer and so experienced and extensive a peach grower as Col. Wilkins has taken up the consideration of this matter. There is, we presume, no point in the cultivation of this delicious fruit, and now staple crop, that has escaped his close examination, and the fact, heretofore alluded to in these pages, that he is probably the most extensive grower of it in the world, gives his warnings and suggestions a weight and influence of the highest importance. Yet such is the public spirit and liberality of our correspondent, that we are sure he would be as well pleased to find proposed some "surer remedy" than his own suggestion, as he is prompt to offer it for the benefit of his brother orchardists.—*Eds. A. Far.*]

Editors of the American Farmer:

In the January number of *The American Farmer*, Mr. Kerr, of Denton, calls the attention of your numerous readers to a very important Pomological fact, the "Variation in the season of

ripening of peaches." That there is a change, is recognised by all orchardists. Varieties, that succeeded each other in regular order, now ripen at the same time, thus increasing the labor of the orchardist, and lessening his profits; overstocking the markets, at times, when there is really no excess of crop, by forcing into market within three or four days, fruit that should have occupied the time of the grower for ten days or more. Other changes have also occurred within my knowledge of Peach culture, on this Peninsula. Some of the most choice and productive market varieties, after a series of years of profitable culture, have been abandoned because of their becoming either unproductive, or so tender as not to bear transportation. Even that old favorite Maryland Peach, the Late Heath Cling, that every man of threescore years in the State, remembers to have picked from the tree after the October election, has been brought forward as early as the middle of September. How these important changes are to be accounted for, and how to guard against others of like kind, are questions of serious import to the orchardist, and if cautious and wise measures are not adopted to answer them and arrest this evil, the injury to this favorite fruit of our country, may be most serious in its consequences.

Mr. Kerr is no doubt correct, when he attributes this variation to the indiscriminate use of seed, and buds, by the nurserymen. I was in hopes that he would have followed up this subject, as I think it one of vital importance to our fruit-growing interest. The nurserymen, who have made a specialty of growing Peach trees, will I think, as a class, take rank with their profession in any of its departments; they use extraordinary means to secure the best specimens, exercise great care and diligence to keep their grounds free from all taint of disease, and their varieties true to their names; stimulating their trees to a healthy growth, by the best appliances known to their art; and yet, in my opinion, and I believe most orchardists who have thought about the matter will agree with me, they are exceedingly reprehensible for the manner in which they propagate the stocks for their nursery trees. They ignore the maxim that should govern the Pomologist, in all his operations: "If you desire the greatest growth, duration

and development in any fruit, choose only a stock of a closely similar nature to the graft."

With stocks thus selected, no change in character or quality can occur, but what close similarity can be found in the little weak growing Hog Peach, of Eastern shore of Virginia, to the luscious and strong-growing Melocotons, Mignonne, and Pavies, that we desire to retain in all their original purity? The time-honored usage of the nurserymen, (I do not think it entitled to any other honor,) is to have seed of natural fruit, to produce their stocks.

They all profess to find these seed, and say their supplies come from the Eastern shore of Virginia, these seed all being small tree stones. Now, Messrs. Editors, being familiar with that part of our Peninsula, as well as having some knowledge of the great quantity of seed annually used, I will venture to say, that there are ten times as many bushels of such seed sold as coming from that locality, as there are bushels of natural peaches grown there; and if they do not get the seed of natural fruit, they get those that look the most like them, and which I have no doubt are just as good. They are all from poor light soil; none of them from fruit of any intrinsic merit; and most of them from trees that make a weak or willow-like growth of wood, forming a stock entirely unfit to bear the crowns for such fruit as we desire to have in our orchards.

Can we hope, with stocks like these, to perpetuate by grafting the identity of all our choice varieties? Can we with impunity continue to graft a strong-growing, luscious late peach upon a worthless, weak-growing, early one, or the converse of this? I fear it has too long been thought we could, and that some of our most highly prized varieties have already undergone such a change as must always be regretted. Lindley says, "All seed will not equally produce vigorous seedlings, and the vigor of the plant will correspond with that of the seed from which it sprang." We know that certain peculiarities, produced by disease, can be propagated by grafting, as in the case of variegated foliage.

The Nectarine is a well-established proof of how peculiarly constant the peach tree is to any constitutional variation, it being only an accidental variety of the Peach; yet it is continually reproduced with smooth skin, from the seed, and is still known in Northern India as the smooth peach. Downing says, "that poor soils will produce debility in any fruit, is too evident to need illustration." With these facts before us, can we doubt for one moment, that these changes in the peculiar characteristics of some of our best Peaches have been produced by an enfeeblement of constitution, engendered by taking seed from the poor sandy soils of the Eastern shore of Virginia, or from the grossly careless manner in which seed are selected? But, it may be said by nurserymen, in objection to these views, that we have been propagating in this way for a great many years, furnishing you with healthy trees, and no fault has been found until recently. The answer to this is, the debility produced in a single generation of trees, or even in half a dozen generations, might have been almost imperceptible, but this same bad management has been going on over the whole country, ever since the practice of planting large

orchards was begun, probably for more than half a century, and it is now developing consequences of a most serious nature. It is this constant indiscriminate budding upon stocks, from these seed, getting your buds each year from the nursery, planted and budded the year previous in the same way,—thus not only perpetuating, but *cultivating*, any constitutional peculiarity or idiosyncrasy that may have been engendered on a variety, by the use of an improper stock originally,—that has wrought the evil.

I think a change has also taken place in the quality of some of our old and most esteemed varieties. I fancy that I know a number of kinds that do not seem to me to be as good as they used to be; this may be one of the infirmities of age, though quite a number of friends much my juniors, are laboring under the same impression. I firmly believe it is this indiscriminate use of seed for stocks, that has spoiled the Hale's Early. It had, at first, qualities characteristic of a good peach, and possibly with careful culture, would have become a valuable variety; but being a hybrid, and near its origin, it could not bear this careless management. I know, that the first few trees of this variety raised by Mr. Isaac Pullen, of Hightstown, N. J., from the original stock, were infinitely superior to those raised by him at any time after that first season, and no one who knew Mr. Pullen would for one moment question his integrity, intelligence, or care, for he deservedly occupied a high position in his profession. The error was in the system. I have frequently thought, that I could see in this peach the influence of the stock, from stock seed. We have the same thing to fear with the Beatrice.

Now, Messrs. Editors, to bring my tiresome communication to a close, and to come to the point to which I wish to direct the attention of all peach growers, I believe that the health and success of our orchards depend as much upon the seed from which our stocks are raised, as they do upon the health of the trees from which the buds for inoculation are taken. They should both be healthy and vigorous, to make good trees. Now all our buds are taken from budded trees; if it be safe for the health of the trees to use such buds, why should it not be equally safe to use the seed from healthy budded fruit? That it is perfectly safe to do so, I have proved in my own experience. The stocks for the first orchard that I ever planted were from seed from budded trees. I bought the seed of a canning establishment, that used none but first-class fruit, of varieties running from Early York to Crawford's Late, and the stocks from these seed were used in budding the ordinary market varieties then in cultivation,—the buds being taken from bearing trees. This orchard was the best that I have ever had; the trees were remarkable for size, and health, as well as for the quality of the fruit.

All of my other orchards have been purchased of nurserymen, who have made a specialty of growing peach trees. Hereafter I shall adopt the only remedy that suggests itself to my mind as corrective of the evil entailed on us by previous bad management, and that is, to "*choose only a stock of a closely similar nature to the graft.*" I

shall use for my own planting, the seed from healthy budded trees, of the *same variety* that I desire to *plant*, and shall bud each *variety* with buds from choice specimen trees of the *same kind of fruit*.—Early York, upon Early York, and Smock upon Smock, and by this means I hope to recover some of the essential qualities that have been lost, in some varieties. This I know is contrary to the generally received notions of nurserymen and orchardists, but changes have taken place in our fruit, and we know not what other changes may await us. We seem to be running into shoal water, and if there is not a change of course, I fear that we shall soon be aground. I shall be glad to know that some orchardists or nurserymen have, or can, suggest a surer remedy.

EDWD. WILKINS.

Riverside, Md., March 4th, 1874.

New Varieties of Fruit Again.

To the Editors of the American Farmer:

In my last letter upon this subject, a few only of the "*noisy*" new kinds of apples and peaches were alluded to, the latter occupying more space than was intended. But when you say *Peach* to an "Eastern Shoreman," you are striking "*ile*," so far as a subject for conversation goes; and the fact that the peach interest is one of the heaviest of the Peninsula, will, I think, excuse a little enthusiasm amongst us on that point. But to proceed with my text:—it may be said that pears are receiving due attention by progressive pomologists, and whilst our country is somewhat behind in bringing out improved varieties of this fruit, we can justly lay claim to leadership of the world in cherries. It being generally conceded that the fine foreign varieties of the plum cannot be grown with profit here, we have now as a substitute a number of varieties of the Chickasaw family, to destroy which that abominable curculio finds it too difficult a task, and slides off sulky to vent his "*spite*" on Hale's Early peaches.—Among the new varieties of American plums, the Wild Goose, as yet, stands highest in favor,—perhaps because more thoroughly tested than the Miner, Langdon, Newman, De Casadene, and others. A few years more will likely elevate all of them in the estimation of fruit-growers. A little more time will also give us the verdict of the people upon the "Utah hybrid Cherries" or *dearlf* plums,—a fruit recently introduced to public notice by an enterprising nursery firm of Ohio! For apricots, nectarines and quinces, we "await further developments." But, turning to grapes, what cannot be said relative to meritorious new varieties? If there is not sufficient room in this department for the amateur, or "any other man," to gratify the most extravagant desire, surely the chance is bad in other branches of fruit-growing. A fine-sized, hardy, productive, vigorous, fine-flavored, quite early grape is the *desideratum*. Worden's Seedling is *said* to be earlier and better than Hartford or Concord.—What an item to those who grow grapes for market,—(if so), what an item!! Rogers, Arnold and Underhill have each done great service by their untiring zeal to improve the grape; but it seems that "the grape for the million" five years back is not the same grape to-day. Either the ciphers in that million or *that* grape, is gradually yielding

to the high modern pressure of progressive horticulture. Skipping numerous very valuable (?) new varieties of grapes, I will conclude my letter by noticing very briefly the progress in raspberries. From the Philadelphia and the Clark for red berries, we are delivered by the introduction of the Herstine and Brandywine,—the latter leading in popularity with shippers. How long it will keep up to its present standard in public favor, is *only* a question of time; for already the claim is being heralded that its superior is "for sale," and I trust it is so,—for while the Brandywine excels the Philadelphia in shipping qualities, the plants are inclined to multiply faster than is desirable in a *good* market raspberry.

More anon, from yours truly, J. W. KERR.

Planting Peach Trees Again—The Finale.

To the Editors of the American Farmer:

The heavy demands upon the columns of your March No., having crowded out my reply to the communications of your correspondents, Mr. Kerr, and Mr. Massey, which I have laid aside, I will give them but a passing notice, so as to leave me room to reply to the more important communication of Mr. Fitz in your March No.

To Mr. Kerr I have only to say, that having "*pitched in*" "*the deep hole*," he seeks his way out by broad unsupported assertions, which amount to just nothing at all, to the point at issue. He arrogates to himself the *knowledge*, that my system of planting Peach trees 18 inches deep, in holes 3 feet diameter, is "*pernicious to the interests of fruit growers*." *Never having seen my trees*, I am puzzled to know how he come by his knowledge. If he has it intuitively, it is a gift of nature, and therefore he is not entitled to any credit for it, but if he *acquired it by study*, I would exclaim at the top of my feeble voice, "*in Mark Twain style*," that such a *MAN*, like his isolated trees,—deserves—a—great—deal—of credit!!

To Mr. Massey, should be awarded the degree of merit for his undoubted knowledge of various kinds, relative qualities, and the proper cultivation of Tomatoes. In my opinion he knows vastly more about Tomatoes, than he knows about the proper way to plant Peach trees.

Now for the communication of Mr. Fitz, which I will review *seriatim*, as briefly as I can.

First, he says that I still insist on expending much "*horticultural sweat*" in digging my deep holes for Peach trees. I answer, *that is exactly true*. Second, he says one thing is *certain*, I will head off the Peach grub. In this I am sorry to say he is *entirely mistaken*; for I have to fight the Peach grub every year. Third, he asks, "why did not some of the fathers gouge thus deeply into the bosom of mother earth, and prove the unmistakable utility of the *deep mode*?" To this grave question, I am left to the mercy of *conjecture*, and I answer, that as I suppose it was because "The Fathers" were lazy fellows, and were unwilling to expend the necessary "*horticultural sweat*," to dig holes three feet diameter, and eighteen inches deep. He continues and says, (ironically I suppose,) that "*the deep roots are at once put in their proper place at the beginning*," whether this is said ironically or not, it is *exactly the truth*; and I do not believe, as he

supposes is the case, the collateral or horizontal bottom roots strive "to get up to forage ground," for this I do certainly know, that collateral roots spring out from the stems *above the original roots*; which I can prove to the satisfaction of any one who will take the trouble to examine my five years old trees; and these collateral roots that sprung out *above* the original roots, give to the support of the tree, a *double set of roots*; and this with the *fact*, (I deal largely in facts) that the lowermost roots are out of the reach of drought, is the reason that my trees grow *more luxuriantly*, than any trees I have ever seen, that were planted in accordance with the practice of Mr. Fitz, and his two or three hundred years old predecessors. Come and see them, Mr. Fitz!

Fourth, my respected friend says that in your last (Feby.) number, "Mr. Kerr has given this *deep hole*" theory, an airing, in a few words, that sets this matter, he thinks, in its proper light. To this I reply, that Mr. Kerr, like Mr. Fitz, deals largely in speculating upon theories, and unsupported broad assertions, without producing the *shadow of a fact*, to controvert what they have *sneeringly* chosen to call the "*deep hole*" system of planting Peach trees. Fifth, he says, "in the question concerning his trees I omitted to give his brief description of the soil, which he put 15 or 20 inches deep around the stems of his Mayduke cherry and Peach trees. To which I answer, that it cannot make any material difference, as to the *kind of soil* he put around the stems of his trees, provided it contained no mineral, or other substance, that would injure the trees: it was only necessary to give them, *as he did*, a *sufficiency of earth*, to take them out of the condition of the other trees in the orchard, which he has told us, *were almost dying with thirst*; thus relieved from a dying condition, by the fall, *were at least twice as large as their neighbors set the same year.*"

Sixth. The 350 trees of five years old, are from the nursery of R. Halliday & Son, one mile west of Balto.; of the 403 trees planted in April, 1872, 268 are from the nursery of R. Cromwell, one mile south of Balto., 154 are from my own nursery; in taking them up I stood by and had it done more carefully than is the practice of "*long nurserymen*"; they were planted side by side with the trees from the nursery of Mr. Cromwell, and there is *not now* any perceivable difference in favor of my own trees; so that after all, "*the deep hole*" is the secret of the great success of my trees. Mr. Fitz must surely, to some extent, "shoot flying," and write at random without the *documents* before him; this I infer from his remark that "in my deep tree planting, the exact *modus operandi* is not given." Now I take it for granted that he must have read my communication, published in your Nov. No., on page 408, giving a *minute description* of the *modus operandi* of my deep tree planting, and it was there, and there only, most undoubtedly, he got his idea, that I put "*hallocks*" around my trees. I regret that he has said, he would like to know whether or not I intend acceding to the proposition of friend "Peter." I cannot make him a more appropriate reply, than to ask him if he takes me to be so silly, as to take any notice of so absurd a proposition? If we should have a wet season and Mr. Fitz shall honor me with a

visit, expecting to see "*a small lot of dry materials, ready for a brush fire*" on my Peach trees, he will most certainly be disappointed, for I am more than doubly sure, it would take a small *Noah's flood* to drown my trees.

It is not my practice or my inclination to indulge in speculating upon theories, but I will hazard the opinion that the trees of Mr. Fitz planted in 1871, will not compare with my trees planted in 1872, in circumference of the stems, or in fruit-bearing wood; but being a year older, will probably bear more fruit, as trees in their *third year* bear little fruit at best, and I say again, measure your trees, Mr. Fitz, and let us have the exact circumference of their stems, and their age.

Mr. F. has endorsed Mr. Kerr, in approving terms, and virtually endorsed his "friend Peter;" I will put the three with Mr. Massey and his "Eastern Shore" in the same basket, and say to them, one and all, they may *sneer* at my system, and may "*bark at the hide*," to their hearts content for all I care. I will repeat that in all I have written upon the subject, I have confined myself strictly to the statement of *facts* in relation to *my own trees*.

With all the wisdom of these gentlemen, it seems to me there is one important thing they *do not know*, that FACTS are as stubborn things as *Jack Asses*, and should not be meddled with except by those who know how to handle them, and *will handle them FAIRLY*.

I trust this may end the controversy between these gentlemen and myself upon the "*deep hole*" system of planting Peach trees, but if they shall choose to keep up the fire, I ask no odds of them, individually or collectively. "Truth is mighty and will prevail." Whether this shall be our final parting or not, I will avail of an old man's privilege, and offer these gentlemen, for their consideration, this small piece of an old man's advice. When you see a new system advanced, which is in conflict with your own opinions, in agriculture, horticulture, or pomology, from a source entitled to decent respect and consideration, do not push yourselves forward in efforts to put it down, without knowing *exactly* and *certainly* what you are doing; for by trying to be funny and witty in *sneering* at it, and *ridiculing* it, you may possibly find that in the end you have been manufacturing yourselves into fit subjects for *ridicule*. But investigate it, investigate it calmly and experiment upon it, and while doing so, "say but little and *write nothing*." If you shall find any good in it, profit by it. If in pursuing your investigations and experiments, you shall discover anything to PROVE that it is "pernicious" in its effects, first "be sure you are right," and then, and not until then, *publish* it, for the benefit of all the world and the rest of mankind.

Balto. Co., Md., March, 1874.

L. W. G.

[Our correspondent does injustice to the other participants in this discussion in saying they pushed themselves forward to engage in it. The reverse is the fact, since upon L. W. G.'s attacking the position taken by us upon this subject, we expressly invited an expression of opinion from all whose experience qualified them to

speak. He, however, as all men of his age are likely to be, is touchy when ridicule is supposed to be intended, and hence his ire towards his opponents, who, in justice to them we would add, were not aware that their remarks were intended for an octogenarian. Here this controversy must end.—*Ed. A. Far.*

Packing Vegetables for Market.

Messrs. Editors American Farmer:

Our earliest products are of the simplest to harvest and market. The season being favorable, and little need be said as to the treatment of them save that they should generally be gathered when dry if possible, and immediately before being marketed, hauled with care and packed in well ventilated packages, not too large, and of a lightly appearance.

LETTUCE or **SPINACH** may be gathered when wet; if packed in very open boxes, they will keep all the better, but if in too close packages are liable to heat.

SHALLOTS, **RADISHES**, &c., should be tied in neat, uniform bunches, and transported in open or slatted packages.

ASPARAGUS—Beware of too deep and long-continued cutting, as you spoil it for this year by the former and for next year by the latter. It should be cut in the morning. Tie your bunches twenty to thirty shoots in each, arranging them as nearly the same length as possible, using bass matting or some other soft and strong material for tying; bring the heads of your bunch all on a level and then cut the bottom ends off true. A little practice will enable one to bunch and tie them neatly and rapidly. Then pack them in a slatted box or open crate.

RHUBARB or **PIE PLANT**.—Pull carefully, wash, arrange in bunches of uniform length, tie with bass matting at each end and cut off the leaves, leaving a half inch of the leaf to appear on the end of the bunch. Each bunch should be of equal weight,—the first ones of the season two pounds, later they may reduce. Pack in open crates.

PEAS.—Henderson says: "If you have a large crop it is necessary to get a large number of hands to pick at the time they are marketed. The variation in one day in the market is not unusually from two dollars to fifty cents per bushel, which shows the vast importance of an early crop. From the soft condition in which it is required to be gathered, it is a vegetable not very manageable to ship, and the packages, which should be of latticed boxes or baskets, should never exceed the capacity of a bushel when shipped from distances requiring from two to three days in the transit. But even this expense and care is well repaid by the high rates for which the first lots are sold." The great mistake made by growers is in allowing their peas to mature too much. Pick them before they have fully filled; you will gain in price paid for earliness and a tender pea more than you lose in bulk. Then it is imperative that they should be shipped in a well ventilated package and not too large a one. The Clifton pea box or Georgia

ventilated basket or half barrel are either of them everything that could be desired for this purpose, and are cheap.

STRAWBERRIES.—Every strawberry grower knows that he should put straw under his vines if he care to keep the sand and earth from them, and that he must pick them as far as possible in the cool of the day, when dry, and as soon as ripe, but not before—one over-ripe berry will spoil the whole basket—and that he must pick them from the vine into the basket or box in which they are to be sold, and sorted as far as possible in picking. But a word as to my experience of the best baskets and boxes may not be amiss. The "*American quart basket*," or the "*Delaware quart basket*," or "*Star pints*," I find the best, and they are cheap, costing not more than two to two and a half cents each; are neat, light, ventilated and occupy the best possible space, and can be repeatedly used. There is a paper basket which is much cheaper, not costing more than three-quarters of a cent each, not quite so neat in appearance but equally light and economical of space, and can be several times used, but they are cheap enough to go with the berries—a great advantage. For the carrying box or crate in which to transport the quart and pint baskets, the "*Clifton crate*" is the best, being the lightest, best ventilated, strong and about half the cost of any other that I know—a crate holding from thirty-two to sixty baskets costing only seventy-four cents—making for a crate containing thirty-two American quart baskets one dollar and thirty-nine cents; or, a crate containing thirty-two paper baskets, ninety cents.

HENDERSON also says, CHAPTER XIV. PACKING OF VEGETABLES FOR SHIPPING.—"When the temperature is high, provision must be made in the package for the admission of air to prevent the articles from heating." * "As early vegetables are always shipped from a warm climate to a colder one, at a season which, of course, must be warm to mature them, open-work baskets or slatted boxes must be used. If barrels are used care must be taken that openings be made plentifully in the sides, so that air may be admitted. For distances requiring a delay of more than forty-eight hours in the transit, for most articles barrels are too large; boxes or baskets, one-fourth the capacity of a flour barrel, being safe."

We in our neighborhood have found the "*Clifton crate*," which is recommended in the February number of the *Farmer*, meet our wants admirably for both fruits and vegetables, being made more or less open, and adapted in size, form and stoutness to the various uses for which they are desired.

The new "*Georgia ventilated barrel*," which I have seen but had no opportunity to use, is said to be the thing where the barrel form is preferred.

II.

JERSEYS IN A NEW ROLE.—The *Mark Lane Express* says a Jersey steer, twenty months old, sold at auction, at a West Herts show, to a butcher, for £35 10s. (\$172.50.) The sire of this steer weighed when dressed 2,310 lbs., and carried an immense amount of fat.

The Vineyard.

Grape Vines—Wine Making.

BY ABRAHAM PARKHURST, ESQ., OF AIKEN, S. C.

[Read before the Maryland State Agricultural Society,
on the 5th of February, 1841.]

The cultivation of the grape vine and the manufacture of wine from the juice thereof, have been in all ages and in all countries an important and lucrative branch of industry. Although the Falernian and other wines of Italy sung of by the Roman poet, Horace, more than two thousand years ago, have lost their reputation, and have yielded the palm to the wines of France, Spain, Portugal and Madeira, yet wines still constitute the chief drink of the Italians.

CULTIVATION.—The mode of cultivating and training the vine varies in different countries; for while the French generally adopt the method of planting grape vines in rows, eight feet apart, and the vines six to eight feet distant in the rows, the Italians have followed the method of planting mulberry trees in rows, with a vine between each mulberry tree, the vine trained to run up the mulberry trees, and the bearing branches to hang in festoons from the trees. The same plan is pursued on the west coast of the small Island of Madeira, with this difference: instead of mulberry trees, walnut trees are planted. As the ancient Roman method of training vines is still pursued in Italy, and as experiments made in this country clearly demonstrate, that grape vines thus trained not only partially exempt the fruit from rot and decay, but shelter the vines from the damaging and destructive effects of late frosts. As regards the State of Maryland, the price of labor would not render silk cultivation profitable, and therefore walnut trees, from the proximity of two such large cities as Baltimore and Washington, would present greater advantages, and serve the double purpose of yielding fruit and a timber whose value is sure to be considerably enhanced by the increasing density of population.

PLANTING AND PRUNING THE VINES.—With these preliminary observations, and assuming that most persons intending to follow the culture of the grape vine will plant cuttings rather than incur the expense of buying roots from a nursery, the writer would remark that he has found by experiment that cuttings with three or four eyes succeed the best,—two eyes being inserted in the ground and the other immediately above the surface of the earth. If planted in rich ground, they will bear fruit the third year. Summer pruning should be pursued by directing the strength of the vine to the support of two main stems, lopping off the others, and tying these two main stems to two sticks or stakes, leaving in the winter (when pruning them) one main stem to bear fruit the following year, and cutting the other stems down to within two eyes of the ground. The stem that bore fruit cut down the following winter, leaving the one decapitated previously to be the fruit bearer. This method is pursued alternately for years, always taking the precaution when thus cutting them down alternately to leave each time one new eye for

the bud to start from. The writer tried the experiment of leaving twenty grape vines unpruned for the year. Innumerable small twigs projected from these old branches, but they produced no fruit. Summer pruning increases the size of the bunches of the grapes, and this is effected by lopping off the wood two eyes from the spot whence the bunch of grapes proceeded.

When grape vines are trained with one main stem, and lateral branches from this main stem are left for fruit bearers, it is customary to leave two or three eyes, and as the buds from these three eyes grow, pull off two and leave only one to concentrate the strength and bear the fruit. This is usually termed the trellis method, and is generally followed in Spain and Portugal.

MARYLAND AS A GRAPE GROWING TERRITORY. Experience, experiment and observation will soon mark out for any man the best methods of pruning and cultivating the vine, and as the subject is one of paramount interest to the country, when viewed in connection with intoxication, it may well deserve the attention of the philanthropist, the patriot and the agriculturist. The fact stands prominently before any man who has traveled in foreign countries, that in those countries where wine is the chief beverage, drunkenness is comparatively unknown. Maryland, from its sloping hills, undulating lands and stony substratum, appears admirably adapted for the cultivation of the vine. The Italians have a saying that the more stony the ground the sweeter the grape, and in many parts of Maryland the roots of the vines would penetrate between and beneath the small stones, and at the same time the roots would be protected from standing water, for it is generally considered essential to the welfare of grape vines that no water should lodge at the roots; hence, the practice of planting on hill sides, to obviate this deteriorating influence.

WINE-MAKING.—The chief art of wine-making consists in attending to the fermentation. The grapes should be gathered on a dry day, and all unripe grapes picked off. Sixteen pounds of grapes are generally estimated to yield one gallon wine, but as some grapes contain much more juice than others, this estimate will vary accordingly. Before the grapes are mashed mix one pound of sugar with the sixteen pounds, and then mash them either with the hand or round wooden rollers, or a glass bottle. Put the mashed grapes into a tub, taking care that the tub should be two-thirds full, and then cover with a blanket. Note the time when the mashed grapes are put into the tub, and place in the centre of the mashed grapes a stick, notching the exact height of the grapes in the tub. The mashed grapes will soon begin to ferment, and will probably reach the highest point of fermentation in thirty or thirty-six hours. Observe every two or three hours the progress of fermentation, and note the exact time it takes from the moment the grapes are put into the tub to reach the highest point, and then allow the same space of time for the fermenting liquid to subside. About three days will generally intervene from the time the mashed grapes are put into the tub to the time the wine is drawn off. Near the bottom of the said tub there should be a hole for a faucet or tap, through which the wine may be

drawn off. It will probably come from the tub quite clear; but in case it should not do so, press the wine through a flannel bag. Have a hogshead, barrel or keg thoroughly cleansed with boiling water or fumigated with brimstone, into which put the wine, taking care that the vessel should be quite full, and if there is not wine enough to fill it, the vacuum should be filled with water. The fermentation of the wine after being put into the cask, will almost at once commence, and by applying the ear to the cask a strong hissing noise will be heard, which in the course of a month will gradually diminish, and in two months the hissing sound will scarcely be audible. As the fermentation goes on, the wine diminishes in bulk, and every third day this vacuum should be filled up with wine. This process of filling up the cask should be continued every week for about two months, or until the fermentation has altogether ceased. A bag of sand placed over the bung-hole will exclude the air. After the fermentation has ceased, and it is no longer necessary to fill up the vacuum created thereby, the bung may be put in, or paper pasted over the bung-hole will exclude the air. After the bung is put in, vent-hole is necessary, which should be opened once a week to let off the superfluous gas, otherwise this confined gas might possibly burst the cask; but if paper was pasted over the bung-hole the gas would escape first through such an aperture.

On a clear frosty day in December the wine should be drawn off, the cask cleaned out and the wine again returned to it. If the wine is not clear, isinglass dissolved in wine and mixed and stirred about in the the cask will purify it; or, the whites of eggs and egg-shells broken and beaten up will answer the same purpose. The wine undergoes a second fermentation in March or in the spring. The sweetness acquired by putting two pounds of sugar to the gallon will, after the second fermentation, in a great measure disappear, and as sugar turns to alcohol through the medium of wine fermentation, we may naturally draw the conclusion that two pounds of sugar to the gallon or sixteen pounds of grapes, will cause the wine to be better, stronger and more palatable. Our grapes in this country are deficient in saccharine matter; hence, mixing the sugar with the grapes before they are mashed remedies that defective quality, and gives a richness to the wines not attainable by the old method of mixing the sugar with the juice after mashing.

Decayed vegetable matter, bone dust and the trimmings of vines cut up into small pieces and buried near the roots, are considered the best manure for grape vines.

DEATH OF THE \$40,600 COW.—The celebrated cow which brought \$40,600 at Mr. Campbell's sale, last Fall, in N. Y., gave birth prematurely to a dead calf, and the cow also died at the same time. It will be remembered that the English purchaser after the sale determined not to send her across the water, and it was understood that his agent had exceeded his instructions in the purchase. Col. L. G. Morris, of Fordham, N. Y., bought her at about \$10,000 less than she had sold for at the public sale. The calf, if safely delivered, would have sold for \$5,000.

Baltimore Co. Farmers' Club.

The following Essay on "*Lime and Clover as Fertilizers*," was read at the monthly meeting of this club, held at the residence of Mr. John G. Booth, on the 4th of February, and ordered to be furnished to the *American Farmer* for publication. At the same meeting the subject for discussion for the occasion was, "What is the best time for planting and mode of culture for the corn crop?" which elicited quite an animated discussion, the opinion prevailing that of all the crops it requires the most thorough preparation of the ground before planting, and constant tillage after until ready to lay by.

The subjects of the essay are of vast importance, and it will doubtless be read with interest, and we give it a place in our pages with great pleasure.—*Eds. A. F.*

Lime and Clover as Fertilizers.

BY JAMES ATLEE, ESQ.

Experiment has fully demonstrated the beneficial effects of lime as a promoter of the growth of vegetation; but the results of its application have been as diversified as the circumstances and conditions of the soil to which it has been applied, and many fail to realize their expectations, either from a lack of proper application or from the condition of the soil being such as to admit of its only dispensing part of its properties as a fertilizing agent. We find from analysis that lime, in some of its combinations, forms a constituent part of nearly all plants, but varying much in quantity in different plants. By direct absorption, it is necessary to the perfect development of vegetation. Its chief office, however, is in its assimilating the properties already in the soil to the plant. Vegetation lives only on digested or decomposed food, in the form of liquids and gases. The soil may contain all the constituent elements of the crop intended to be raised, and yet they may not be in a condition to be appropriated. Most soils contain carbonates, sulphates and phosphates of potassium, sodium and magnesium, in combination with silica, in the form of earthy rock, feldspar, &c., but in such a condition as to be absorbed only as they are slowly decomposed by exposure to the gases of the atmosphere and the rays of the sun. Many of the manufactured fertilizers make a fair showing by analysis, and do contain the elements which should sustain the plant, and yet they may be in such combination as to prove inert, on account of their insolubility. This is one of the beneficial properties of lime. It breaks up these combinations and forms new compounds which are more soluble, and are thereby made available nourishment. This result of liming is more perceptible on land containing humus or vegetable mould, which is converted into plant food.

Under certain circumstances the use of lime may be detrimental. When brought into contact with ammoniated fertilizers it decomposes hydrochlorate of ammonia, setting the ammonia free, and thereby causing a loss of one of the most valuable stimulants of plant growth. It

also reduces a superphosphate of lime to a phosphate, thereby rendering it insoluble. Hence, we find superphosphates and ammoniated fertilizers do not act well on recently limed lands. We would not advise, therefore, the composting of lime with stable manure, hen manure, or other fertilizers rich in phosphates or ammonia. We have, nevertheless, an antidote for this trouble which should always be resorted to when loss is likely to ensue from this cause. Plaster (sulphate of lime) and salt (chloride of sodium) absorb the ammonia set free, and form sulphate of ammonia and hydrochlorate of ammonia, which are soluble and in condition to be returned by the rain for the use of the crop. It would be well to state in this connection that this is the real benefit to be derived from plaster, (which is but a different form of lime.) Not being of high value as a fertilizer in itself, but having an affinity for ammonia—which is very volatile and liable to be lost by evaporation—it lays hold upon it as it passes from the decomposing vegetation in the earth, and also absorbs that which has escaped, and is returned by the rains, and is thereby brought directly to the fountain from whence the plant draws its nourishment. I would advise, therefore, a more general use of plaster, or plaster and salt, to be sown on top of the ground, especially where ammoniated fertilizers have been used, also to be sown on barn-yards and in stables and chicken-houses, to save the ammonia which otherwise would escape.

A solution of copperas (sulphate of iron) will answer the same purpose applied to stables, and is one of the best disinfectants for cellars and out-houses.

But we derive other beneficial effects from liming. By breaking up these combinations in the soil it renders it more friable and easier penetrated by the atmosphere and warmed, and in this condition it absorbs the moisture more readily, and is less liable to suffer from drought. From these thoughts we would conclude: First—That but a small quantity of lime is requisite, independent of its action upon and in conjunction with other constituents in the soil. Second—That lime applied to land destitute of humus or vegetable matter makes available the inert properties in the soil, acting as a stimulant to the crop, and leaves the land in a depleted condition. Third—That only in combination with the mineral constituents of the soil that are available, and such vegetable and animal matter as may be supplied, can its full benefit be secured.

This brings us to the consideration of the second point of our subject,—the action of lime upon and in connection with clover as the best means of furnishing the requisites of a complete fertilizer. Of all plants none seem more dependent on lime than clover, and it will not grow on land destitute of lime. We find by analyzing the ash of clover that of its inorganic or earthy parts there is twenty-five per cent. of lime, twenty-seven of potash and soda, six of magnesia, three of chlorine, five of silica, twenty-five of carbonic acid, six of phosphoric acid and three per cent. of sulphuric acid.

Thus we see that lime, potash and soda predominate largely in the earthy part of clover. The carbonic acid is supplied by the atmosphere in abundance. From the peculiar habit of the

clover plant, it draws its nourishment from sources not available to other plants. Its fibrous and deep penetrating roots search for food to a depth not attainable by other plants, while its numerous and broad leaves drink in its organic constituents from the atmosphere, shading the ground from the decomposing rays of the sun, and concentrating near the surface a mass of those very elements needed for the succeeding crops, and in kind and quantity more than sufficient to supply their wants.

We thus have in the combination of these two fertilizers—the mineral and the vegetable—those very constituents requisite to the nourishment of the cereal crops, and to this end an all-wise Creator has so abundantly provided lime that it is supposed to comprise one-seventh of the crust of the earth. It remains for the tiller of the soil to utilize these resources so bountifully provided.

Tobacco Worms.

The Clarksville *Tobacco Leaf* publishes a paper upon this subject from the pen of Dr. W. D. Chambers, of Henderson, Ky., giving the result of his researches within the past ten years, of the natural history of the tobacco fly, and having experimented largely in the various methods of its destruction, by poisonous agents, he has come to the conclusion that much that has been published in newspapers upon this subject is entirely erroneous. The following is the result of his observations:

"Tobacco-worms, as other caterpillars, have three states of existence, viz: worm, chrysalis and butter-fly. The latter we term a tobacco fly. The worm is hatched from the egg of the fly in two or three days from the time of its deposit on leaf. When eight or ten days old it assumes a passive or drowsy state for three or four days and then throws off its old skin which has become dry and loose. By this change its dental arrangement is much improved, its powers of destroying greatly augmented, and it becomes full grown at the age of about twenty-eight days, in the meantime having well earned the reputation of the planter's most bitter enemy. The last few days of the worm's stay are passed in trips back and forth from plant to the ground, seeming loth to try the uncertain realities of such a habitation. Having finally entered the ground its last time, it descends to the depth of eight to twelve inches and usually rests with its head down. Thus is begun the second state of its existence, which period continues ten months, when it has undergone great change, now being incased in a hard shell with articulating rings in the centre, by which motion is secured. We now observe to what use the horn of the worm has been turned: it is no longer a seeming useless appendage, but has become hard and is shaped like the bit of an auger, by which the chrysalis is enabled to bore its way to the top of the ground, where its shell is thrown off, and thence begins the third, last, and we may well say the most enviable state of its life.

Tobacco-flies are divided into males and females, and present considerable variety in their

size and color; the females having shorter and thicker bodies, and their color not so sandy as the males: they suck the flower of various plants but manifest a partiality for those which have a strong odor, such as the gourd and Jamestown weed, as it is commonly called, but more properly *datura stramonium*. At the age of seven to fourteen days the female is ready to lay eggs, which are deposited on the plant of which we have traced the history. When tobacco is scarce or is wanting, the flies put their eggs upon some other plants, viz.: the potato, (Irish,) tomato, horse-nettle, and black night-shade, all of which belong to the natural order *solanum*. About two or three weeks are spent in depositing the eggs, when the life of the fly terminates. It is thus seen that the life of the fly is about twenty-eight days or one month, the same as that of the worm; adding these to the period as a chrysalis, we have one year as the whole of its life. It is impossible, then, as has been asserted, for worms to change into flies and deposit eggs the same season. Actual experiment has proven the contrary, and nature is uniform in her laws. We now come to the most important part of our monograph, the different methods of preventing the multiplication or increase of tobacco-worms.

A large percentage of the worms that mature and go into the ground, do so after the tobacco crop has been cut and housed, and thus we readily see the advantage to be derived from digging up or turning under with the plow the stubble of the plant after the crop is cut; for this stubble puts forth sprouts or suckers, upon which immense numbers of worms feed and mature. Some years we have an early frost which kills the suckers and obviates the necessity of destroying them as recommended. The next method of preventing an increase of worms which suggests itself is, the plowing of the land cultivated in tobacco the previous year, in the months of January or February, so as to turn up and expose the chrysalis to cold, freezing weather. Plowing the land immediately after the crop is cut would not prevent the worm returning to a new position in the ground; whereas, when the plowing is as late as before stated, the chrysalis is torpid, in a semi-changed condition and can not return to an abode underground. It is obvious, too, that spring plowing would not answer our purpose, unless the plowing were succeeded by a freeze. Poisoning the fly seems to be the most popular way in vogue within the past few years for preventing the ravages of tobacco-worms. Cobalt, arseniac acid and corrosive-sublimate are the poisons recommended. Strychnine would not be suitable, as the tobacco-fly has no spinal cord, only a nervous ganglion. The cobalt is most conveniently used by melting an ounce in a pint of water and adding half a pint of liquid honey. The bottle containing this should be kept out of the reach of children, as a number of cases of poisoning have occurred owing to negligence in this particular. An ounce vial, with a cork stopper, into which is inserted a small quill, is suitable for putting the poisonous solution in the stramonium flowers. The best time for doing this is every evening about sun-set. Two or three drops are sufficient for one blossom. Stramonium has a tubular blossom which opens about an hour before sunset and remains open

until after sunrise the next day, when it closes, withers and dies. Every evening there is an entirely new blossom. It is a mistaken notion that the cobalt kills the blossom. The fly sucks the poison by means of its long bill, which is nothing more than a hollow tongue, and is killed by excessive purgation. The time required to produce death depends upon the amount taken. I have often seen them killed by the poison in fifteen minutes.

One or two dozen stramonium plants should be set in a rich moist spot in the tobacco ground early in the season, say May or June. All others on the farm should be cut down, for the flies prefer to feed from the unmedicated blossoms. In order to work the destruction on the flies effectually, the planters throughout every neighborhood should use the cobalt as directed. Planters must not rely too exclusively upon this preventing them from finding worms on their tobacco; if they do they will not get enough of the poison to produce death the first dose and are apt to shun it afterward unless it be disguised by using another sweet instead of the honey.

W. D. CHAMBERS, M. D.
Henderson, Ky., January, 1874.

PARIS GREEN FOR COTTON WORMS.—*Its Effects on the Birds.*—A correspondent of *Phillips' Southern Farmer* says he had one hundred acres of cotton on swamp land that would have been ruined, but on the first appearance of the worms he put eight hands on mules with two gallon watering-pots, and had ten more hands and two wagons supplying them with water, poison, &c.

He went over his cotton twice, up one side of the row and down the other. Poison, labor and all cost about three hundred dollars, but saved him at least twenty bales of cotton. The field will now turn out, as near as he can see, sixty bales; whereas, if the worm had been allowed to have it, forty would not have been gotten. The experience of all, he says, that have used the poison has been that it should be applied, to realize the best effects, on the very first appearance of the worm, and before any show of damage has been made. He used the poison by putting to each canful of water half a tablespoonful of poison and three spoonfuls of flour, and stirring well. Without the flour it would not stick, and the only trouble was that the little lumps of flour would not all be broken up and would stop up the holes in the watering-cans. It was found necessary to wash the shoulders of the mules every night.

As a reverse to this, the *Farmer and Gardener* says, the results of the use of Paris green against the cotton caterpillars were satisfactory only where small fields were experimented upon, and the work of sprinkling the solution was thorough, and that upon large fields the experiment has proved of questionable profit as regards its cost, or the benefits received. One result, however, is to be deplored, in the large destruction of birds, which in many localities have died by the wholesale from eating the dead worms poisoned by the Paris green. This is regarded as a serious misfortune, as more damage will eventually occur to the cotton, as well as all other crops, from the

destruction of birds, than all the cotton worms can accomplish. This insect makes only periodical invasions, while other species of caterpillars are permanent nuisances, to rid us of whose presence birds are our best allies.

The Agricultural Report for December had a paper from Prof. Glover on this subject, from which it appears that the Department has received returns from seventy counties in response to inquiries as to effect of applications of Paris green or other arsenical compounds. At least four-fifths, he says, of all declare it is an effectual remedy, and that it is most approved where most generally used. The conclusions drawn from the reports made are about as follows:

Paris green, mixed with flour, in the proportion of 1 to 25 or 30 parts, is of utility and in many cases has saved the crops; and that failures have arisen from improper use, or spurious materials; that Paris green or arsenic used with water and sprinkled over the plants has been effective, but the water must be stirred at the time of using it, as the poison does not dissolve. The caution is given not to make the mixture too strong. When used as a powder the plants must be wet that it may adhere to the leaves, and as rains will wash the powder away it will have to be renewed after heavy showers. The application of the Paris green on the first appearance of the caterpillars is recommended, and as soon as possible also after the second crop of worms appears.

Mr. Glover says only a few cases of injury to man or beast have been observed and even some of these are not well authenticated. Caution is given that persons using the poison should be on the windward side when dusting or sprinkling the plants, and that stock be kept from the foliage. The Professor alludes to the complaints by planters of the indiscriminate slaughter of insectivorous birds, which are so useful in destroying the cotton-caterpillar, and concludes by reporting the experience of three of his correspondents who have driven flocks of turkeys into the cotton fields as is done in Maryland and Virginia in the tobacco fields, and who have found they quickly exterminate many of the worms.

Like all other seeds of the vegetable kingdom, it is important in planting the cotton crop to obtain good seed. In an account lately published in the *Farmer* of a large yield of cotton by a planter of Mississippi, he attributed his success in no inconsiderable degree to the seed he had planted, which was that so well known as the *Dickson*. The *Rural Carolinian* for March very justly remarks, that "In cotton culture it is the worst of bad management to plant inferior seed because it would cost something to buy the best, but, as we have repeatedly urged, every planter should by continual selection and high cultivation, make his own seed, and take pride in having the best. Begin with the *Dickson* seed, or any better sort, if there be any better, and improve upon that till you have something as much better than the *Dickson* as the *Dickson* is better

than the common. We are accustomed to boast of the perfection to which cotton culture has been brought in this country, and with some reason, but there is still room for improvement—something to learn by those not too wise in their own conceit to accept new truths. Only general rules for the culture of any crop can be given, when they are to be applied to various conditions of soil, climate and season. Experience must determine the exceptions, and god judgment guide the planter at every step."

The Emigrant Fields of North America.

[In accordance with our promise, we make some extracts from the letter of a correspondent of the *London Field*, who writes from Washington City—dated Nov. 5.]

THE CITY OF WASHINGTON.

Farming conditions in the neighborhood of Washington are peculiar and rather inviting. This city has a population of about 120,000, to a very large extent luxurious and wasteful livers, and its market is one of the best to be found in America. A very large proportion of the farmers and landholders on both sides of the Potomac are too much impoverished, too indolent, or too badly informed to reap one-half of the advantages that this near market offers them, and, in consequence, much of the produce consumed in Washington has to come from very considerable distances, notwithstanding the natural fertility of the soil.

The city is between the two recently slave states of Maryland and Virginia. About ninety years ago the site—which was then a wilderness, with aboriginal Indians occupying the neighborhood—was selected by Washington, and laid out under his directions. At that time the channel of the Potomac flowed close to the city, with a depth of about 30 feet. No other city on the whole Atlantic coast was better situated for the commerce of the future under such conditions as then prevailed; while its natural advantages, as a centre of manufactures, were superior to those of any other Atlantic port, Philadelphia not excepted. The falls of the Potomac are within the original limits of the district, and if utilized they would afford abundant and never-failing water power for a great number of large manufactories. A little higher up the valley are the quarries of limestone, and marble, and hydraulic cement. There are also beds of superior kaolin, terra cotta clay, and abundant materials for the manufacture of glass. Further up there are rich beds of iron, and further still we have the immense coal deposits of West Virginia, Maryland and Pennsylvania, through the midst of which the Potomac cuts its way from the mountains to the sea. Being at the head of the tide water of a very wide river, with high hills around it in almost every direction, the location is exceedingly beautiful, while the natural draining is excellent. There is plenty of pure water, and the climate is as healthy as it is mild and pleasant, epidemics of all description being almost unknown.

With these great natural advantages in its favor, it was also the particular pet of the Government and of the national Legislature. Washington had fondly anticipated a great future for the

city, which the nation named in his honor; and he caused its plan to be laid out on a scale of grandeur to be found nowhere else. Large reservations of land were retained by the Government in the most favorable locations for the sites of the various public buildings, which were generally constructed, after Grecian models, of a pure white marble, which in this climate is scarcely affected by the hand of time. These, as they have been extended or rebuilt to meet the increasing requirements of a rapidly growing nation, have afforded employment to large numbers of people; and yet until very recently it has seemed utterly impossible for the city to grow, except in just so far as the Government lavished the national funds upon it. It consisted almost entirely of the great Government hives, of a few parasitic caravansaries, and of a number of rows of irregular, straggling, squalid houses, along lines of streets so wide and so little used that no authority thought it worth while to incur the great expense of keeping them in tolerable order. The population was in round numbers 40,000 in 1850; it had increased to 60,000 in 1860, since which time it has rivalled the growth of the great Western cities, reaching about 110,000 in 1870, and bidding fair to number close upon 200,000 by the end of this decade. The grand plan of the city, its mingled magnificence and squalor, and its unfinished appearance, obtained for it the derisive appellation of the city of magnificent distances.

The writer proceeds to give the reasons, which he says Englishmen of ordinary intelligence will understand, (alluding to slavery,) why the city, with all its advantages, had not more rapidly increased in population and prosperity,—for, he adds, it combines in a pre-eminent degree the three elements of health, convenience and beauty.

But, from circumstances connected with the war, with the altered conditions of profitable cultivation, to which it is impossible that all Southern planters should adapt themselves, have so impoverished large numbers of those around Washington, as well as elsewhere, that they are ready to sell on lower terms than they could have obtained when the population of the city was 40,000 or 50,000, and comparatively stationary. These terms would generally prove very profitable to new-comers having capital and experience.

The hills and heights for a distance of eight or ten miles in every direction afford beautiful locations for villas and suburban mansions, but the soil is generally thin and poor, and at the average price of £5 to £6 per acre they would scarcely pay on the average (merely as farm land) as well as the less hilly districts a little further from the city. On the Marlboro' road, which is in excellent order, there is a farm of 250 acres, about twelve miles from Washington, five miles from a railway station, and seven from a steamboat landing. It is very good land, in fair condition, and the house thereon is worth about £1,000. The price for the whole is £3,000, on the usual terms of one-third down, and the balance in one, two and three years, at 6 per cent. It could probably be bought for cash at considerably less.

I am given to understand that a short advertisement for land in the county paper at Marl-

boro' would probably be answered by a hundred holders desirous of selling. There is an abundance of excellent land for sale in Prince George County at about £8 an acre, with improvements; average distance from Washington about fifteen miles. Portions of the country are very healthy, but other parts are more or less subject to fever and ague. In Anne Arundel County the prices average a little less, the land being scarcely so good on the whole, while a smaller proportion is subject to the influences of malaria. Calvert, St. Mary's and Charles Counties contain much excellent land, at from £4 or £5, with inferior improvements, to £8 or £10, or £12, where the improvements are very good."

Correspondence.

Agriculture of France.

Fat Cattle Show—Deep Plowing, its value—The Manure Question in France—An English Company in Paris manufacturing Poudrette—Nitrogen, Deodorizers, &c.

To the Editors of the American Farmer:

The first annual show of fat cattle since the war and the rinderpest has just been held in Paris. It was a success beyond expectation. Excepting in the case of calves, of which on the present occasion there were none, the entries corresponded with those of the year 1854, and were one-third less than in 1870. Two distinct facts have been developed by this exhibition: remarkable improvement in the breeds of cattle, notable crossings with the Durham race, and a tendency to secure the qualities of precocity and mean size. The end of all industry is profit, and there is a law, such land, such stock, that cannot be violated. It is a theory more seducing than accurate, in France at least, that the value of an animal is in proportion to its weight; climate and soil are agencies, however, that must be taken into account. Large-size, heavy stock, is passable in England, but not as a rule perhaps for France. For example, the butchers—a class that farmers must listen to—prefer an ox 16 to 18 cwt., rather than one of 22 or 24 cwt. The former weight also, will command at least one franc more the hundred-weight. In the case where the soil is poor and pasture scanty, sheep are reared, and in time passed on to richer districts in the north and west to be fattened. The best sheep for the Paris market, which finds the readiest sale and highest price, is that which weighs only three-quarter hundred-weight. Legs of mutton, 20 lbs. in weight, and cutlets 1½ lbs., are not at all in demand. Beef, to make soup, is the chief flesh diet for the working classes; then pork; mutton rarely. Heavy joints of the latter can but be disposed of in hospitals, schools and barracks, where contract prices only are allowed. Hence, the precocity and food of animals must not only be considered, but also the exigencies of the butcher's customers. Thus, the chief objection against Southdowns, is their weight. Three sheep, weighing each ¼ hundred-weight, will realize one-third more in total price than a single sheep weighing 1½ hundred-weights. The Southdown has its advantages not the less, as it has

one-third less development of flesh in the region of the shoulders and breast, than any other breed of sheep in France. The display of implements was very satisfactory, and indicated that in a few years home manufacturers will be able to supply all the wants of France.

The relinquishing of the naked fallow, and the deeper cultivation of the soil, will give an impetus to the use of machinery. The action of light, air and heat on the soil, is only now commencing to be accurately studied. So important is the role of the sun in the economy of life, that Professor Tyndall asserts, "plants and animals are children of the sun." Humus plays an important part in the mechanical, as well as in the chemical condition of vegetable nutrition.—When the air cannot freely enter the soil, owing to its natural stiffness or insufficient deep tillage, humic acid is produced, which is not beneficial. Humus is useful only when it can act in producing these phenomena of fermentation so mysteriously connected with the plant's life. It is more essential in cold and elevated latitudes than in the contrary. Being black, it warms the soil; it binds loose soils and loosens tenacious clays; acts in a sense like lime. The presence of humus is not at all a consequent evidence of fertility; it is power of work, in a word, that constitutes its value. In the case of heavy clays, a series of wet seasons tend to produce an excess of humic acid; to remove this injurious acidity, lime is added, or the culture of oleaginous plants in a rotation secures the same end.

The arrival of spring, when the agriculturist has want of so much manure, may explain the discussions taking place on commercial fertilizers and manures in general. A few good principles to remember: that agriculture ought never to neglect any substance capable of increasing the produce of the soil; that commercial manures, whether artificial, like sulphate of ammonia, &c., or natural, like guano or nitrate of soda, ought only to be viewed as supplemental fertilizers, to make good what the farm itself cannot produce and repay the soil; that only the "marvelous" manures announced should be received with suspicion, and that while analysis can reveal the richness of a manure, it cannot prescribe authoritatively for all the wants of the soil. Since the supply of Peruvian Guano has ceased to create anxiety as to possible exhaustion, manufacturers of other manures are not in the best of humors at having to lower prices, which they raised in 1872,—sulphate of ammonia 75 per cent., utterly regardless that there was a point at which even gold could be bought too dearly. The English Company, which has the concession of the feculent matters of Paris, is rapidly manufacturing *poudrette* and sulphate of ammonia at moderate prices. Boussingault and Chevreul remind us, that when chemistry reveals 10 per cent. of nitrogen in sulphate of ammonia, and the same percentage in guano, *poudrette* and farm-yard manure, equal power of fertility must not be imagined, as the latter substances are still the more valuable, no doubt owing to the influence of the other organic, but non-nitrogenized matters. It is sound practice to rotate manures as well as crops. In the north of France nitrate of soda alternates with phospho-guano, both being aids to farm-yard manure. The used chrysalis of silk

worms has appeared as a manure; pressed like oil cake, and guaranteed to contain 10 per cent. of nitrogen, it sells for 10 francs per cwt.

It is necessary to keep in mind that deodorizing is not disinfecting. Chloride of lime, verdigris and copperas are efficacious for the former. But for disinfecting a stable, killing contagion, nothing can surpass steam and boiling water, if they can be laid on. Failing this remedy, burning sulphur and enclosing the fumes for three hours, is excellent, following up by a washing of the walls and utensils with a solution of carbolic acid and copperas; whitewashing the walls ultimately, not forgetting to throw some chloride of lime into the wash. This is the infallible remedy that science and experiment concur as capable of destroying every virus.

M. Renaud draws attention to the condition of ponds and ordinary drinking places for cattle; asserts that when the latter prefer impure to pure water, such indicates a tendency to coming disease, and that may generally be arrested by supplying the animal with salt. Foul water is as unfit for cattle as for man. A pig, for example, will often leave its proper food to root up and devour that part of the litter most saturated with its own urine. Such is ever the evidence of a threatening disease, and necessitates sparing meals, a little antimony, and a regular supply of salt.

F. C.
Paris, (France,) Feb. 21st, 1874.

[FOR THE AMERICAN FARMER.]

Maryland the Most Desirable State, as a Residence, of all the States in the United States.

Think for a moment: what should make a State desirable as a place of residence?

The character of the people of a State, its climate, soil, topography, its water-power, internal improvements, the nature of its animal kingdom, its game, all contribute to make it more or less desirable as a residence.

From its early settlement by a sturdy English race, to the present hour, her people have enjoyed the reputation of being a brave, chivalrous, law-abiding people. In the recent unhappy war, the spirit of "The Old Maryland Line" more than once shown forth in deeds of valor that challenged the admiration of bitterest foes. Both in history and song her patriots and military heroes rank with the noblest of the land.

That they are a law-abiding people none can question, when they remember how patiently the people are at this hour submitting to the exactions of laws which have ruined large numbers of her citizens, whilst they benefit the State as a whole. Never was so much suffering inflicted on a people, by one act of a State, as the sudden abolition of slavery occasioned, and yet no people ever were more obedient to a law.

I cite this to show, that a people who are submissive under such trying circumstances, may safely be relied upon as a law-abiding people.

The climate is of that pleasant variety which avoids everything like stagnation, and inspires a cheerful tone to whole communities. It is rarely very cold or very hot, but preserves as a general rule the happy medium.

The soil is of almost every variety. The upper part of the State is rich in mineral resources.—

What is familiarly known as "Western Maryland" is a fine wheat and grass country. The middle counties and the Eastern Shore are also well adapted to grain of every sort, fruits of every kind, and vegetables. "Southern Maryland" cannot be surpassed as a corn, tobacco, fruit and truck-growing country.

And now, with a railroad running the whole length of the peninsula, connecting with other roads and branches, with two noble streams (the Potomac on the one side and the Patuxent on the other) bearing on their bosoms the rich products of its soil, it presents facilities for ingress and egress unsurpassed by no other lands of equal fertility in the whole country. The proximity of lower Maryland to the seat of government of this growing nation is a great advantage, which it must ever possess.

Now that the people of Washington and the whole nation seem to have awakened to a sense of the propriety of making it a city worthy of being the capital of the greatest nation on the earth, there is no estimating its rapid growth in wealth and numbers. Ere another decade, the banks of the Potomac may begin to be decorated with palatial residences like the Hudson. Whatever enlarges and expands and adds to the wealth of that city, must radiate an influence over the surrounding country.

Without the naturally kind rich loamy soil which we have underbedded with marl, and the beautiful streams irrigating nearly every small field, the simple location of Maryland ought to and will make it a most desirable home for those who love to be convenient to a city whose destiny is to radiate scientific, literary and political information,—a city destined to be the Paris of America,—the great reservoir of information for the world, pouring out its streams of light without money and without price to the remotest parts of the earth.

The luxuries of life also abound in the waters and fields of lower Maryland. The terrapins of richest flavor abound in her waters, the finest oysters, ducks, ortolan, reed birds, and a great variety of the finest fish. The partridge is also a great source of amusement to those fond of game. Thousands of these are killed annually by the sports from our large cities. With the most ordinary care and attention on the part of land-owners, they would become very plentiful.

There is one remarkable advantage which Maryland possesses, which few States with so many advantages can boast of—that is, her entire freedom from all wild and vicious beasts of every sort, and offensive and dangerous reptiles.

And, in addition, and perhaps far in advance of every other consideration, is the warm and cordial welcome which the citizens of lower Maryland are prepared to give those who come to her hospitable shores, with the view of making a permanent home.

Our citizens are fast recovering from the lethargy of slavery, are anxious to take their rank among the industrious and enterprising of the land, and will extend the hand of fellowship to all such, come whence they may.

PRINCE GEORGE'S.

The continuation of Mr. Bliss's papers on Cooperative Dairying was received too late for this number.

On the Advantages of Soiling.

The following was written to a young farmer who has established himself on the Eastern Shore of Maryland, and who asked the writer for information upon the subject,—a copy of which has been furnished at our request for publication in the *American Farmer*. It will be found invaluable to every farmer, and reliable, as the writer is one of the most practical and painstaking men of our State:

MURKIRK, P. George's Co., Md., }
Feb. 18, 1874. }

Yours of the 31st ult. was received this morning. It will afford me great pleasure to give you any information in my power, and I will try to answer your questions satisfactorily. Let me preface my answers by saying that the advantages of soiling over pasturing depends (in my opinion) altogether on two points—the fertility of the soil and the cost per acre. If one is situated in a position where he has fertile grass lands at a cost of \$30 to \$40 per acre, (such as southwest Virginia or Kentucky,) I hardly think that soiling will pay, as the cost of labor to feed the stock would amount to more than the interest on the land; but where, as in our section, there is very little good grazing land, and what there is is worth so much an acre that the interest on the investment would more than pay the cost of labor, then I think that soiling pays. For instance: on my farm, of 120 acres, I kept last year an average of 45 head of Short-horns, young and old. If my land had been good grazing land, it would have taken nearly the whole of it to pasture them through the season; whereas, I not only raised green feed enough for them all, and had them in excellent condition, but I raised hay, straw and corn fodder enough to very nearly last them through the winter, and, in addition, roots enough for them,—say 4,000 bushels of mangolds, 6,000 bushels ruta-baga turnips, also 240 bushels rye and 500 bushels oats. This in the face of a drought that caused me to cut over more land to get at green feed than I otherwise would have done, and that would have caused my cattle to suffer very much if they had been on pasture. I am satisfied that with me soiling is the best way to feed my cattle, and that they are just as healthy fed on my plan as if they were pastured.

Now, in answer to your questions:

1st. "What crops do you use for soiling?" I use rye, orchard grass and clover, Lucerne, oats, and corn sowed in drills. Last year I tried Hungarian grass, but it was planted too late, and the drought prevented it from doing much. Sowed corn is better than anything except Lucerne for soiling.

2d. "When seeded?" The rye is sown, as usual, in the fall. The oats are sown as early as possible, and then my seedings follow, as regularly as possible, every ten days. 1873—first planted oats for soiling 3d April, 3 acres; second planting oats 14th April, 3 acres; third planting oats 23d April, 3 acres; first planting corn 6th May, 3 acres; corn followed in regular rotation then until the middle of July. For my stock I sowed last year three acres at every seeding. The ground for all these crops is made as rich

and as finely powdered as can be done, the object being to raise as much green feed to the acre as possible. I have raised three crops in one year off the same piece of ground—rye for soiling, followed by sowed corn, and then planted the first week in August with ruta-bagas. I also follow my Early Rose potatoes with a crop of the ruta-baga. The oats and rye are sowed broadcast; the corn is sowed in drills about thirty inches apart; the drills are laid off with a small marking plow, and the corn is sown by hand, and covered with a cultivator with the front tooth taken out. The corn is worked as often as it will permit.

3d. "How fed?" We commence feeding the rye as soon as it heads out,—feeding at first sparingly, so as not to bloat the cows, or give them the scours. Then follow with orchard grass and clover, or Lucerne, as the case may be; then with oats, and then with corn, which crop lasts until frost. First cut rye 6th of May, 1873; then cut Lucerne 14th May, followed by orchard grass 18th May; this and clover lasted until 11th June, when we commenced cutting oats; these lasted until the 15th July, when we commenced cutting corn and continued on this until frost. All the land sowed in oats for soiling was afterwards sowed with corn in drills, and the fodder saved for winter feeding.

Of course the Lucerne comes in several times. The green-fed is cut with the scythe and is fed out in square boxes with a V-shaped opening in each of the four sides, and is fed to them in a lot of about two acres. This is to give them room to exercise. The breeding cows and yearlings are not stabled during the summer.

4th. "Do you feed other than green food during the summer months?" My object being to keep my cattle in good condition, and not to pull them down during their time of milking, I have always fed those cows that were milking, four quarts of mill-feed night and morning. Those cows that were dry got no feed. I always allow my cows to go dry three months before calving. The yearlings and two-year-olds I always feed well, even in summer, as the main object is early maturity.

5th. "What root crops do you raise?" I raise mangold wurtzel and Swedes or ruta-baga turnips. The mangolds are planted as early in April (about the 15th) as possible to sow, and to at the same time avoid having the young plants cut down by the frost, as they are very easily killed by frost. The ground is prepared in the best manner possible. For instance, the four acres that I planted in mangolds last year were prepared as follows: the year before it had been planted in potatoes and followed by Swedes; that fall it was plowed and subsoiled to the depth of 15 inches; in the spring stable manure was spread over it, a liberal coating; then it was plowed, then harrowed with heavy harrow, and followed with Thomas' harrow. It was then rolled, so as to give a smooth surface for drilling. The seed was then sowed on the flat surface, with Holbrook's drill, in drills 28 inches apart, using about 3 lbs. of seed to the acre. On part of this land 300 lbs. of Kainit to the acre was sowed on the drills; this in the first of the season appeared to be the best, but when the crop was harvested we could see no difference in the

yield between it and other parts. The yield on these four acres was 4,000 bushels. This, while not a large crop, was good considering the season.

The Swedes are planted generally about the last of July. I had two different lots in Swedes last year. One of six acres was planted in Early Rose potatoes and these followed by Swedes. The potatoes were manured with barn-yard manure and Kainit; the land was prepared for the Swedes in the same way as for the mangolds, with the exception that it was not subsoiled.—The seed was sown in the same manner, using 2½ lbs. seed to the acre, and then sowing 300 lbs. of bone-dust to the acre on the drills. Finished sowing these on the 31st July. The other piece, of three acres, was sod land, plowed in the fall, and was the first piece that we sowed with corn for soiling. This was prepared after fodder was cut, in the same way as the other, with the exception that a good coat of barn-yard manure was plowed in. Finished drilling this with Swedes the 7th day of August. The yield on these nine acres was about 6,000 bushels.

6th. "How fed?" 7th. "What is your winter feed?" The mangolds, or turnips, we generally commence with, and finish with mangolds; they are cut up with a Nourse-Mason root-cutter, bought of Sinclair & Co., Baltimore. Our winter feed consists of half a bushel of roots and four quarts of mill-feed to the grown animals, morning and night, with all the cut oat-straw or cut fodder that they will eat. To the yearlings and calves we feed good timothy and clover hay, turnips, mill-feed and corn chop,—varying the feed according to the capacity of the animal.—The calves get milk until they are six months old. Have never weighed the hay, so that I cannot say how much each animal will eat.

Hope that this will answer your purpose.
Yours truly,

CHAS. E. COFFIN.

Merino Sheep Elsewhere than in Maryland.

To the Editors of the American Farmer:

The breeding of sheep has long attracted the attention of mankind in various parts of the earth. Abel appears to have been a keeper of sheep in the earlier stages of the world. In the patriarchal age, when Abram went up out of Egypt, between Beth-el and Hai, as Lot had flock of sheep, their herdsmen and shepherds were striving together, which caused Abram and Lot to separate, that each could have room and no strife. Again: when Jacob goeth to Padan-aram he meeteth Rachel, the shepherdess of her father's flocks. And again: after the birth of Joseph, Jacob proposed to Laban to send him away, that he might go to his own country; but Laban implored him to tarry, and Jacob said to him "appoint my wages." Here seems to be the first history of a skilful breeder. Jacob proposes to remove all the brown sheep from the flocks, and these should be his hire as shepherd; and the man increased exceedingly. His wages were then changed with like results. I am aware that many attribute this to divine interference, and yet the entire history thereof shows the skill of a master shepherd.—Here seems to be our first ideas of the wonderful results of skilful handling of a flock of sheep. The want of attention to this is a part of the failure of Spain to keep up with America in breeding Merino sheep.

Why is it Marylanders have not entered upon this business? Here is ample room for skill and capital combined. Here is a business that will enrich your worn-out farms, and also the owners thereof. You have stood aloof too long: why not enter the ring? A few good animals can be bought; they increase rapidly, and your family will soon take a lively interest in them. If Maryland farmers would visit some of the sheep farms and see the results, certainly they would change their old routine. I may likely lack ability; I admit I should not know how to farm without a flock of Merino sheep. It may be Maryland farmers are over-zealous, that they will persist in their old ways.

JOHN S. GOE.

Raising Silk Worms.

Editors of American Farmer:

Gents:—Enclosed I send you a few samples of silk-worm grains, Japanese, French and cross-bred. Last December I wrote to the leader of the Imperial Austrian trial station for silk raising at Goerz, Illyria, requesting him to send me a hundred grains to commence my trials with. Very generously he presented me with about 3,000 grains, which, however, I cannot feed, as my young Mulberry plantation is only one year old, and I possess only one large Mulberry tree which is fit for feeding. At my request he stated further, that the raising of silk worms in the wild state on Mulberry plantations, has been tried in the most different parts of Europe and Asia, but universally has turned out a failure, as a room-culture of 3,000 years has changed the nature of the silk worm entirely, and has produced only a few worthless cocoons. However, he did not dissuade me from trying it; only he requests me to report. Now I send you what I can spare of the grains, asking you to distribute them to such friends who might desire to make a trial (provided they possess a few large Mulberry trees.) Also I send you some seed of the white Italian Mulberry. (I have raised in hot bed, 200 very nice young trees last year.)

Request your friends to try a few grains in the wild state, and also experiment with a few grains in room-culture. Tell them to keep the worms on clean shelves and feed them on cut Mulberry leaves from five to six times a day. They drop their skin some four or five times, and get into a state of torpor at that time for about 24 hours, and must not be disturbed then. When they want to spin give them a few dry boughs to settle on. Keep them clean, warm and airy all the time.

I feel very much interested in this branch of industry, and from small beginning like this, an important branch of industry might spring. The grains must be kept in tin boxes to save them from mice, rats, and other vermin. They will hatch in a warm room by themselves, or expose them under cover to the sun, about the time the first Mulberry leaves will start. Till that time keep them as dark and as cool as you can. We certainly can not get the grains from a better place than from Goerz. Truly yours,

Frederick Co., Md., March 7, 1874. A. JACKSON.

[It will give us great pleasure to divide the "grains" thus kindly forwarded by our corres-

pondent, among any of our readers who may apply for them, and who, having Mulberry trees, will try to raise the silk worms. We will also distribute the Mulberry seed in the same way. In the July number, page 259, of the *Farmer* for 1873, may be found some facts connected with the raising of silk worms, &c., presented by Mr. Jackson, which may be referred to with profit by persons who may receive any of the eggs.—
Eds. Am. Far.]

Wire Fence.

Messrs. Editors American Farmer:

Wire fence, if not properly made, is not only of no use, but a perfect nuisance and eye-sore about any well-regulated farm; but if put up as it should be, and of the right material, it is the best, cheapest and neatest fence a farmer can have,—at least we think so in this section.

Here we have wire fence that has been in use eighteen years, and is good yet.

Make your posts of wood that will last well in the ground. They should be 6 feet in length; say 5 or 6 inches thick at butt, tapered at top to 2 by 3 inches square; bore $\frac{1}{4}$ inch holes through, (5 in number is what we use,) the first hole $2\frac{1}{4}$ inches from top, next 9 inches from hole, then 8 inches, next $7\frac{1}{2}$ inches, and 7 inches from last.

Now plant them 12 feet apart. The end posts should be much heavier and one foot deeper in the ground, with a good brace reaching from the top to the bottom of next post.

Now you are ready for the wire, which should not be lighter than No. 6. Stretch it before putting up, as it will pull through the holes easier. Now splice. Then you are ready for the rollers. If the fence is very long, or ground very uneven, you will want a set at each end; if not, one set is enough.

They are made as follows: Cast iron, $5\frac{1}{2}$ inches long, $1\frac{1}{8}$ inches in diameter, with one hole in centre crosswise 5-16 inch in diameter, one hole near each end $\frac{1}{4}$ inch in diameter, at right angles with each other. Now put the wire through the centre hole; then with steel levers made for the purpose, 18 inches long, (tapered a little at one end, so as to enter the $\frac{1}{4}$ inch holes,) you can draw the wires perfectly tight, as they always should be. Keep the rollers from running back by putting a heavy spike in one of the holes.

They will occasionally want tightening, especially in hot weather. Do this, and I think you will know how to appreciate a good and durable fence.

I find five wires sufficient for horses and cattle; for sheep and hogs there might be one or two more. As the wind has little or no effect on such a fence, the posts need not be put in the ground over two feet.

R. C. SHOEMAKER.

Montgomery Co., Pa.

Mr. Geo. Page, the well-known machinist of this city, speaks very highly to us of the Vanderwer Corn-Planter, which he uses on his farm, and one of which can be seen at his works on Schroeder St. It plants two rows at a time, and is considered by him one of the most efficient machines he has ever seen.

"Farmer of Charles County, Md."

To the Editors of the American Farmer:

Your excellent paper, in which you have so long labored in behalf of the farm interests of Maryland, is now at hand, and on page 96 I find "Farmer's" article, which requires some reply. He says: "We can get thorough-bred rams from Mr. Goe, I am sure." That depends on circumstances; there are times when I have to return orders for rams, and during the past year I had to reject orders for over two hundred rams. At present I have only about twenty-five rams of all ages, including my breeding rams, and those too young for last fall's service. I have lived in Pennsylvania for nearly half a century, and have never known any of the Merino sheep-breeders in the "category" he alludes to. I have not yet known a breeder of Merinos in Pennsylvania "to get them off his hands, send down in Maryland by the 1,000, and put them out among the farmers on shares," although Farmer says "this I know to be a fact." I know that those itinerant dealers often purchase grade Leicester, Cotswold, Southdown and Merino, and gather up all varieties, in which disease and Cotswold crosses are not objectionable, provided they can be bought low, and "by the 1,000 they ship them off to Maryland" and elsewhere to sell and "put on shares," &c. These men have never made any pretensions, that I know of, as breeders of Merinos, although some of them make claims as breeders and importers of Cotswold, Leicesters, &c., and seem to include Maryland as their outlet. What claims and pretensions they make when dealing with the people there I know not, save in part. "Farmer" and his Cotswolds seem to be hurt some way in connection therewith. We have no issue with them; their business is separate from mine. We infer there is a pressure somewhere with "Farmer" and his Cotswolds. These decrepid mongrels of earth that those itinerant dealers take there "by the 1,000" seem somehow to rouse his wrath and call forth some unsupported assertions. He seems to incline to have it go forth as the "Merino vs. Cotswold Sheep." Of this we care little, whether he terminate it with "Cotswold sheep" or South American sheep, or even elephants; but, "Farmer," do not get things mixed up with the breeders of Merino sheep,—the dealers of sheep of every hue, variety and caste, not excepting those "Farmer" fancies. I would be pleased to have "Farmer" visit me and examine my Merinos, and he may rest assured I will try and entertain him, and while we are viewing them he may rest assured I will not ask him to buy one of them, but will direct him to some of those importers of "Cotswold," &c., who, perhaps, are some of the men in the "category" he alludes to.

Brownsville, Pa.

JOHN S. GOE.

[It is proper for us to remark, that we placed the heading to the communication of "Farmer," none having been given by its author, who therefore is scarcely responsible for its form. Of the facts stated by "Farmer," as within his own knowledge, we think there can be no doubt, though of course misrepresentations may be made by parties having sheep to let out, as to their purity.—*Eds. A. F.*]

The Dairy.**"THE COW:—The Best Breeds—How to choose a good Cow—How to keep her in permanent profit."**

[We conclude the publication of the paper of Mr. Hazard, on the subjects indicated above. That portion which we now give, upon the feeding, milking and general management of the cow, will be found of peculiar value.]

HOW TO MAINTAIN THE COW IN PROFIT.

With a good selection made, there will necessarily follow the question, how to maintain her in good condition for profit? It must be apparent to every thinking person that good qualities, even in the highest perfection, will not insure an abundant and rich supply of milk unless proper care is taken to furnish the cow with the kind of food best calculated for the required purpose.

THE ART OF FEEDING.

The first requisite is, that the animal should have abundance of food, so as to be able to consume all that she requires in as short time as possible, as then she will lie down and have the more time to secrete her milk, and that milk acquire richness. In short, she must not have to work too hard for her living. The pasture should be often changed, and if not in pasture the food should be succulent, otherwise fat instead of milk will be produced; but cows fed with food of too watery nature, which is the case with roots early in the season, require an addition of more solid food, such as meal or good clover chaff, otherwise the milk, although considerable in quantity, will be poor and wheyey, yielding no cream. Such roots should be carefully selected as have no symptoms of decay, and should be mild in flavor or the butter will be tainted. In very cold weather, and as a change of food, use oil cake and ground oats, steamed or boiled. The best roots are carrots, yellow turnips and mangel wurzel, succeeding each other.

The cow and the horse can well pasture together, but no other animal should be allowed in the same field, pigs and poultry spoiling and tainting the feed. The pasture must be kept clean from weeds, and all refuse matter. It must be supplied with an abundance of pure water, and be free from all standing water. Cows should be taken in about sunset, or before they are preparing to rest for the night, and should not be hurried to or from pasture, especially when full of milk. Experiments have proved it is better cows should not remain out all night, after August at least, but be stabled in an open airy shed.

Cows should always in winter be well fed, regularly fed, and sufficient food of the right kind. Regular currying is of the greatest utility, as it keeps the pores open and promotes the circulation. Twice a day of as much as they will eat of timothy and clover hay mixed, with two quarts of Indian meal unbolted, four quarts of wheat bran, and half a peck or a peck of carrots or sugar beets to each. Turnips may be fed to dry cows, but to milking cows they give a taste to the milk and butter. Corn-fodder is excellent

as an addition, but if fed by itself will give an unpleasant taste to both milk and butter. Steamed or cooked food is now much used and to great advantage, but we doubt if it pays where but few are kept; cows will eagerly drink the hay-tea that is left after steaming the hay. Potatoes, raw or cooked, are excellent food, and thus the small ones come into play. In summer-time, or early fall, if the pasture is short, fresh corn-fodder helps the milking qualities wonderfully, and we are glad to see it is much more raised than formerly. The earlier it is grown and the earlier it is fed, the more it will help the milking qualities. A piece of rock salt should always be where the cows can find it.

THE MANAGEMENT OF THE COW.

The proper management of milking cows is no less important than proper food.

It should always be borne in mind that the animal whose capabilities are for milking becomes lean on the same quantity of food as will make the feeding cattle fat. The consequence of this is that the milking, and therefore lean, cow is more affected by changes of temperature than the feeding or fat one. Therefore, for successfully maintaining her in profit, care should be taken to avoid rapid and considerable changes of temperature, as well as damp or clay land. There should always be a clean, dry shed in which the cattle may take shelter whenever they feel uncomfortable either from heat and flies or cold and damp. This shed should be well drained, and opening to a warm aspect.

An animal always cold is always uncomfortable, and a large proportion of the food she takes is consumed in keeping up the heat of the body instead of making milk; warmth is, therefore, food to the cow, and may be obtained with little cost and less trouble than some other food. Cold and sudden chills are a great detriment to the appearance of the cow, and are frequently the cause of her falling off in her milk so early in the season. So it is in turning them out too early in the season, much injury is done by exchanging them from a warm yard or shed to pass the night in the open air before the season is sufficiently advanced.

In proportion as the breed of cattle has improved so has the necessity of care increased. It is a question of economy whether it is not better to bring cows in at night all through the year, for they spoil much grass, and are not benefitted by being in the dewy grass too early in the morning, and the manure would be in the yard, where it is valuable, instead of under the fences, where the cattle would naturally lie for protection.

Perfect cleanliness in every part of the cow-house is of essential importance; the stalls should be kept clean, the walls free from cob-webs and dust, and the mangers clean also. Much of the benefit of good food is lost by giving it badly prepared or in uncleanly boxes. The importance of ventilation is very great, but its benefits will be in a measure lost if the interior of the house is not kept clean. Another point to be attended to is the bedding and littering of cows; in many cases this is grossly neglected, the animals being kept in a very uncomfortable condition. The long straw as generally used is not economical; it is most efficient if cut with the straw cutter. Less straw is required in this form

than if used long, and it not only admits of the droppings being lifted easily away without disturbing the rest of the bedding, but it is in the best condition for the manure heap. Sawdust, leaves, &c., also form an excellent bedding.

THE ART OF MILKING.

Another matter to be attained to keep the cow in profit is to see that she is milked properly. As a general principle cows should be milked twice a day, and the time should be regular, say at six in the morning and six in the evening all the year round. If after calving, in the early state of milk, it should be found that the bag becomes too full from extreme heat or other cause, it will be advisable to reduce the bag in the middle of the day; but some judgment is necessary in putting this into practice, as too great eagerness in relieving the bag may have an injurious effect by weakening the power of retention. Before and during the time of milking the cow should have some good hay or meal. It is beneficial in two ways: It is a wholesome stay to the stomach; it engrosses the attention of the animal and keeps it quiet during the operation; it helps to sustain the stomach of a large yielder, drained by the flow of milk, and needing extra sustenance for the growth of the unborn calf. This should be done even during pasture time, say a quart of good bran at each milking; and if fed to them under a shed in the field, where they could be fastened in stanchions, it saves all necessity for driving the cows, it keeps them quiet, and saves the time and temper of the milkers in fly time, and surely increases the yield and easy flow.

The hands should be dry and clean; wet hands chap the teats in cold weather, and want of cleanliness produces warts. The last milk withdrawn is richer for the production of butter, one pint than two quarts of milk first drawn off. Imperfect milking will also dry the cow much earlier than if properly milked, and tend to decrease the quantity. A few days prior to calving, should the bag be much distended, it should be thoroughly relieved.

Whatever may be the cause of the restlessness of the cow during milking, gentleness is the only treatment that should be allowed. A young animal never forgets ill-treatment, and will withhold her milk.

We have thus endeavored to gather the experience of those who have made the nature and management of cows a life-long study, and if we have presented nothing new to experienced farmers, our object will be gained if they will only put into practice what they know already, and not treat the cow with indifferent care, and expect the same rich returns from their investment as if they were properly cared for. Remember that all nature is alike, subject to the same natural laws, and none of them can be violated without paying a penalty. Get a good cow of the best breed for your purpose; not only select it with care, but keep it in good condition for profit, and in the long run she will pay you better than if neglected. We have trespassed upon your time too long, but it is a subject not only of great interest to all of us, but as much might be properly said upon each one of the questions discussed as has been said upon them all combined.

Agricultural Calendar.

Work for the Month—April.

In this region we have had an abundance of that March dust, a peck of which is said to be worth a king's ransom,—so long a continuance of high winds as we have had seldom being experienced here. As we write—March 18th—the weather is mild, and the prospects would seem to be favorable for an early spring, though the uncertainty of our climate of course precludes anything like prognostication of what we will have a few days ahead. It becomes every tiller of the soil, therefore, to make the best use of the favorable opportunities offering, not forgetting that "as ye sow so shall ye reap," and that the thorough preparation of the land goes far towards making amends for unfavorable seasons.

Corn Culture.—This universal crop, to which, on most of our farms, all others are secondary if not subsidiary, deserves the best care as well in the preparation of the land as in the application of manures and the selection of seed. To grow the crop with profit, the soil must be rich naturally, or made so, and well pulverized. The better condition the soil is put in at the outset the easier the after workings, and the more manure you apply the greater your profit, the cost considered of raising small and large crops.

Corn revels in rich manures; it will appropriate ranker sorts than any other of our cultivated crops, and its demands are for all the materials which are found in domesticated plants, its ash being peculiarly rich in potash, soda, phosphoric acid and lime, and also containing less proportions of magnesia, chlorine, sulphuric acid and a great one of silica, which needs not to be added artificially to any soil. Of all manures for corn none excels in efficiency good stable or barn-yard manure, or well-rotted composts. Those who have heeded the suggestions we have given from month to month, to prepare compost piles, will now have rich mines of fertility upon which to draw. Of the more concentrated fertilizers adapted to use in the hill, we name superphosphates, bone dust, wood ashes, plaster, salt and hen manure.

The distance of planting and the mode, whether in drills or in hills, depends of course upon the nature of the soil, the kind of seed and the predilection of the cultivator; but it is an axiom that the closer the planting the heavier must be the manuring both broadcast and in the hill.

An addition to your broadcast application of stable manure or compost, which will tell in the crop, would be 100 pounds of guano or bone dust, 1 bushel of plaster and 2 of salt. The last named ingredient seems one well adapted for use on corn, both as a manure and as a destroyer of insects. For manuring in the hill, a handful of a mixture composed of 5 bushels of ashes, 1 each of salt and plaster and 50 pounds of bone dust, will be found very serviceable in giving the plant a push at the start. Guano may be used instead

of the bone, but in this case scatter the mixture so that it is not brought in direct contact with the seed.

It is presumable the seed has been selected carefully from early maturing and perfect ears. For protection against insects and vermin, soaking the seed in a solution of saltpetre is recommended. Two pounds of saltpetre to four gallons of water are sufficient to a bushel of corn, which may soak twenty-four hours. Another remedy against depredations on the seed is to coat the grains thinly with tar. A pint of boiling tar stirred into a peck of seed will answer to cover it.

In cultivating the crop, so much depends upon the nature of the land and its condition that few general rules can be laid down. The first working can hardly be given too soon after the plants are visible. The number of workings will of course depend on the season. Where the Thomas harrow is used a great revolution has been effected in corn culture, and the labor of preparing the ground and cultivating the crop is greatly diminished.

Potatoes.—To make a good crop of these, too, the land must be well pulverized, mellow and light. Do not use green stable manure if you can avoid it. Well-rotted manure or compost, ashes, bone dust, plaster and salt are all good applications. Hill culture is the most convenient for working, but it is generally conceded that in drills larger crops may be raised. Deep plowing is an essential of full success, and subsoiling, where it can be practiced, is very useful. To keep the ground loose and open, and free from weeds, is another necessity to making a paying crop. Do not allow the earth to become crusted over, and before the vines appear above ground loosen the surface and destroy the young weeds by running a light harrow over the field. The Thomas harrow is the very thing for this, and the labor of potato-growing is very much diminished by using this implement in preparing the ground and in cultivating the crop from the time it is planted until the vines are six inches high. Plant as soon as you can have the soil in good order—do not plant before. You will gain nothing even in earliness by slovenly preparation. Strike for a good crop, a large crop, as its cost is little more to you than a very light one.

Oats.—These ought to be gotten in as early as is practicable. The crop is one which will bear some neglect; but it is one which will well repay generous treatment. We refer to back numbers for some remarks upon the treatment of this grain.

Barley., too, should be sown early. A caution worthy of frequent repetition is, that this grain will not grow on land undrained of surplus water. A good loam, deep and mellow, well prepared by the plow, the harrow and the roller, will produce paying crops without much of an expenditure of manures. Rank manures are unsuited for barley, and those of the farm should be well decomposed before their application. A good superphosphate is a suitable fertilizer, in doses of say 200 to 300 pounds per acre. Two bushels of seed are usually sown to the acre. It is recommended to roll the grain as soon as it is four or five inches high. From the price this

grain brings, it is a matter of surprise to us that it does not find more favor with our farmers.

MangelWurzels and Sugar Beets.

We have so often referred at length to the great value of root crops that it would appear almost supererogation to renew our appeals in behalf of a trial. We are sure a trial will convince the most skeptical of their worth, which is really far in excess of their money value. No kind of stock but relishes and is kept in better condition by supplies of succulent food such as roots afford, and such is their health-preserving and alterative effects, that they render all other kinds of feed more nutritious and fattening. From three to four pounds of seed to the acre is sufficient, and this will sprout quicker if soaked in water and rolled afterwards in plaster to dry. The most convenient plan for sowing is with one of the many patterns of hand drills offered by the implement dealers, which make the furrow, sow and cover the seed and mark the next drill. The rows should be from two to two and a half feet apart, and the roots should be thinned out so as to stand 8 to 10 inches apart for the beets and twelve inches apart for the mangels.

The land to grow these crops ought to be rich, deeply worked and mellow. Well-rotted manures and composts are good applications, as also are bone dust and super-phosphates, though on stiff soils long manure is an advantage. Sow the seed early and keep the land well stirred. See in Mr. Coffin's article on soiling, his management of mangels.

Carrots are as useful as, and probably more nutritious, than any other roots grown on the farm; but the cost of raising them is also greater, owing to the labor needed in their early growth to keep free from weeds. As winter feed for horses and mules they are very valuable. A light, rich sandy loam, is best suited to them. Subsoiling is an advantage, and deep and constant tillage a necessity. The seed is sown in drills 16 to 20 inches apart, and plants should be thinned to 6 inches. If before sowing it is mixed with sand and shaken well or rubbed between the hands, the seed will separate easily. If with them some radish seed is mixed, they will germinate quickly and show the rows before the carrots sprout, thus enabling them to be worked before the latter are out of the ground. Carrots should be sown a little later than the roots named above, it being better to wait till the ground is warm.

Parsnips.—These roots are nutritious and are very much esteemed for the table, besides being useful for feeding cows and swine. They succeed best in the same soil as carrots and require the same general treatment. The rows may be about 20 inches apart and the roots stand every 6 to 8 inches. Keep the ground deeply stirred.

Corn for Soiling.—We recommend every one to try even a small patch of fodder corn. We are so sure that its advantages will make themselves so apparent when the pastures fail, that all who try it will henceforth sow it more largely, that we only ask a moderate planting. Nothing is more useful in the hottest part of the summer for milch cows and horses also, and the former keep up their flow of milk with-

out decrease, especially if a little meal and bran be given in conjunction with it. Sow in drills 2½ to 3 feet apart, and run the cultivator through the rows two or three times. The land ought to be rich. About 3 bushels of seed to the acre is the best quantity. It may be sown up to the first of August, and cut when it is shedding the pollen freely. If to be cured for winter, early sowing is best.

Sowing Plaster on clover fields should be attended to now at once. From one to two bushels to the acre is sufficient.

Vegetable Garden.

April.—Work in earnest is now upon every one, but we hope none of the readers of *The American Farmer* belong to that antiquated class who think the garden is of so little importance that it can be left out of consideration entirely until all other pressing work is completed. In our belief, no other part of the farm gives returns of greater value than the vegetable garden. Those who have been forehanded enough to do during the dull season what work they could will be less pressed now.

The hardy vegetables may be sown as soon as the ground is dry enough, including in this department Beets, Carrots, Cabbage, Lettuce, Onions, Parsnips, Parsley, Peas, Radishes and Turnips, whilst the more delicate kinds should not be sown before the weather is settled and the sun warms up the ground. This class embraces in it Bush and Lima Beans, Cucumbers, Corn, Egg Plants, Melons, Okra, Peppers, Squash and Tomatoes. These for the open ground had all better be delayed until corn-planting season comes.

We have already given a list of approved sorts and suggestions as to treatment of the various vegetables grown in this part of the country, and some of the notes in our last will suffice for the present month; but we repeat some of them in an abridged form.

Look closely after your hot-beds, which now need much more attention than in starting them. An hour's sun may destroy the work of weeks, or, trusting to the absence of frost and leaving your frames uncovered, may do you as great an injury by one night's cold.

Asparagus beds should be forked up at once, if not already done. Beans of dwarf or bush kinds may be planted. Beets sown. Cabbage set out. Carrots and Parsnips may be sown in drills 16 inches apart. Sow Celery in the richest and moistest part of the garden. Plant Horse-Radish sets at once in rows. Onions ought to go in at once. Also Leeks. Set out Lettuce. Sow Parsley in foot drills. Plant Peas in succession. Potatoes ought to be in. Sow Radishes every week. Rhubarb beds ought to have a good coat of manure; if not applied, do it now. Sow Salsify like Parsnips. Tomatoes for main crop may be sown. Sow Turnips.

Farmers' Meetings.

Queen Anne's Co. (Md.) Agricultural Society

We had the pleasure of attending the March meeting of this enterprising and intelligent association, composed entirely of the young farmers of the county, of whom it may be said with propriety that it would be difficult to find a more zealous and progressive community of agriculturists. Undaunted by the difficulties which surround farming as now carried on, the members of this society seem really enthusiastic in their pursuit, and ever on the alert for means of improving themselves or the processes of their art.

Its monthly meetings not only bring together the members of the society, but also, in many cases, prove the occasion of a reunion of the foremost agriculturists of the county,—invitations being extended to some of the older farmers, known as successful in their calling, to attend and give in their experience for the benefit of their younger brethren.

The meeting for last month was held at the residence of Mr. W. T. P. Turpin, near Centreville. This gentleman was one of the earlier graduates from the Maryland Agricultural College, and has proved himself, in practice, one of the most energetic and successful farmers of his section of country, and one who, from his industry and zeal, is regarded as among its most rapidly advancing young men. Renting out for the present year some portion of his estate, in order that he may better concentrate his attention on a less area, he now farms himself some 500 acres of land, which has heretofore been almost entirely devoted to the production of the staple grain crops, corn and wheat. He is now about engaging, however,—as are almost all the farmers in that part of our State, to a greater or less extent,—in the cultivation of small fruits, and is preparing the ground to plant some 12,000 raspberries and 7,000 blackberries, as an entering wedge to a change in his system, which will in the future include the raising of these fruits and peach growing as well. Whilst we are not disposed to give to his *alma mater* much credit for the success that has attended his labors, we may be pardoned for saying that if all our agricultural colleges turned out such enterprising and skilful farmers as our friend Turpin, their influence would soon be felt for good over the whole land.

The subject of debate was the proper time and mode of applying lime, and this branched off into a general discussion as to its nature, operation and effects. A number of the members partici-

pated, and the proceedings throughout were interesting and instructive. The general opinion was favorable to applying lime on the surface and to keeping it there, or near there, as long as possible; and against the practice sometimes followed of at once plowing it under, so that its descent is immediate and its recovery impossible. Several of the guests of the occasion also spoke on the questions coming up, among these Col. John R. Emory, a gentleman long distinguished as one of the most intelligent and successful farmers of the Eastern Shore, who gave a detailed and very instructive statement of his use of lime and the benefits he had received from its application. We regret that we did not have the facilities for making an extended report of his remarks, which, though delivered in a conversational manner, were extremely terse and lucid in their style and cogent in their reasoning,—all his extended experience in different soils, under varying conditions, being extremely favorable to the use of lime, as one of the great renovators in a system of improved agriculture.

The discussions closed, after a substantial and handsomely-prepared dinner, (which is always one of the features of these meetings,) the Society, about dusk, adjourned,—all, guests as well as members, well pleased with the proceedings of the day.

Maryland State Agricultural Society.

The regular monthly meeting was held 5th March, A. B. Davis, Esq., President, in the chair. Gen. Geo. H. Steuart, chairman of the committee appointed to present the memorial of the society to the Legislature, upon the subject of immigration, protection of sheep, roads and vagrant stock, presented a report, which was accepted, and the thanks of the society were unanimously tendered to the committee for the faithful manner in which they had performed their duty. The report is given in our pages for this month, and will be found an able, tersely-written paper.

Mr. Ditty, of Baltimore county, one of the committee, made some remarks as to the difficulties the committee had encountered in getting a hearing before the Legislature, and offered sundry resolutions condemning in most positive terms the act which had been passed at the instigation of the Committee on Agriculture of the House of Delegates, as it "will probably cause more evils than are proposed to be remedied," and as being "impracticable and unfit to enforce any tax upon dogs." The resolutions of Mr. Ditty were unanimously adopted, and the secretary of the society was directed to forward the same to the chairman of the Senate Committee on Agriculture, Judge Tuck, of Anne Arundel, with the request that the same shall be read from the desk of the Reading Clerk of the Senate.

A vote of thanks was also passed to Judge Tuck, and also to Mr. Davis, Senator from Baltimore county, for the interest manifested by these

gentlemen in the furtherance of the wishes of this society, in regard to the measures presented in its memorial to the Legislature.

At this point of the meeting a visiting committee, consisting of the following members of the State Grange, were introduced to the meeting: Mr. Ewing, of Harford county; Mr. Hepburn, of Kent county, and Thomas H. Iglehart, of Anne Arundel county. The committee, through its chairman, Mr. Iglehart, stated that they had been delegated by the State Grange to visit the agricultural society and learn what were the objects of the meeting announced to be held in April in this city, and to which each of the county granges in the State had been invited to send ten or more delegates. On behalf of the agricultural society, Mr. Davis said the only object the meeting had in view was to promote the general agricultural interests of the State, and he hoped that every grange in Maryland would send representatives, who would be well received and cared for during their stay in the city.

The president having called Mr. Rieman to the chair, called attention to the subject of drainage in cities and other sanitary measures, referred to in a paper from Prof. Hallowell, read at a former meeting, in which Mr. H. suggested that the scientific men of the country should endeavor to discover some chemical process by means of which this refuse matter might be utilized, and placed in a condition to be used as a manure in enriching the soil. Mr. Davis then called for the reading of portions of a paper from the pen of Ross Winans, Esq., of Baltimore, upon the same subject, in which that gentleman had presented his views as the true solution of this growing and now most difficult problem.

Mr. Sands, from the committee appointed upon this subject at the former meeting of the society, asked for further time to report, which was granted, and the paper of Mr. Winans was referred to that committee. Mr. S. alluded to the interest shown in England upon this subject, which was attracting much attention at this time, and read an account of the experiments with sewage, by the "Phosphate Sewage Company," of that metropolis, which has patented a process which promises to solve the very troublesome question of the disposition of the liquid filth that flows through the sewers of every city.

A communication was received and read from Mr. H. C. Hallowell, of Montgomery county, upon sheep husbandry—a copy of which, on motion Mr. Ditty, was ordered to be forwarded to the Committee on Agriculture of the Senate at Annapolis, in whose charge is left the bill for the protection of sheep.

Mr. Ross Winans was, on motion, thanked for his paper on sewage, &c., and elected an honorary member of the society.

The president then presented and caused to be read a paper on the culture of the grape, and the making of wine, received from Abr. Parkhurst, Esq., of Aiken, S. C. [This paper will be found on another page.] The thanks of the society were ordered to be presented to Mr. Parkhurst.

After the reading of this essay, which shows the peculiar adaptability of Maryland for the culture of the grape, Mr. Wm. H. Fairbanks, of Baltimore county, made a very forcible address

upon the same subject, in the course of which he remarked that he understood that the soils near Lake Erie, so celebrated for the successful cultivation of this fruit, were similar to that of Maryland, and he felt confident that in course of a few years the farmers of our State would see the profit of giving more attention to it, and that we would not be beholden to the States of Ohio and New York for our supplies of grapes and apples, and if those interested in the cultivation of the soil would co-operate in a strenuous effort, Maryland would soon prove that she ranked among the leading agricultural States of the Union. The society then adjourned to April 9th.

REPORT OF COMMITTEE ON LEGISLATION.

The Committee appointed to memorialize the Legislature on Immigration, Sheep Husbandry, Vagrant Stock and County Roads, respectfully report, that the memorial embracing these subjects adopted by this Association at its last regular monthly meeting, was duly laid before the Legislature on February 10th last, and on the same day your committee also submitted bills relating to Immigration, Sheep, Taxation of Dogs, and Vagrant Stock; and on the 3d instant a bill on County Roads.

Your committee earnestly sought to inform themselves on the matters committed to their charge, and to secure the most effective legislation attainable under the existing differences of opinion.

On Immigration, Col. F. Raine, of the *German Correspondent*, who is well known to have made this subject a special and careful study, was consulted, and your committee were gratified to find him in full accord with the views of this Association, as expressed in their memorial. This gentleman has entered so heartily into the promotion of our object, as to prepare himself a bill, which after due deliberation your committee have adopted as eminently satisfactory, and which is now pending in the Senate, in charge of Mr. Stevens, of the City of Baltimore.

This bill asks for a very small appropriation, some \$2,000, to be applied to diffusing among immigrants practical and reliable information as to our resources and advantages, creates no new offices, and places the whole matter under the charge of a board, consisting of the President of this Association, and three gentlemen to be appointed from the State at large, who are to serve without pay.

Your committee, remembering past failures, owing chiefly to absorption of appropriations by salaries, and to admixture of political schemes, do not believe the people of this State will ever sanction the enactment of any law appropriating large sums to payment of salaried officials, or providing for the carrying on by the State of an Immigration Brokerage business.

Your committee laid before the House committee on Agriculture, to whom had been referred that portion of your memorial relating to Sheep, &c., a bill to enable sheep owners to recover damages for sheep killed or injured by dogs, and a bill imposing a license tax on dogs.

No action was taken on either of these bills, and, for some unexplained reason, the House committee on Agriculture declined to hear your committee, with reference to those bills, though

we have made persistent and unremitting efforts to get a hearing, from the 10th of February up to the 3d of March instant, when it became evident that further effort was useless.

Both of these bills have been kindly taken charge of by Senator Tuck, of Anne Arundel county, and will probably be offered by him in their original or in an amended form.

The interest evinced by this gentleman satisfies your committee that our bills will be attended to promptly, and his character and position is such as to guarantee that any changes which he makes will be judicious and well calculated to secure our ends.

A bill taxing dogs, a printed copy of which is herewith submitted as a part of this report, was, however, reported by the House committee on Agriculture, and passed by the House on the 3d instant.

Your committee thinking this bill fatally defective, earnestly sought to have it amended or their own bill above referred to, submitted, but without success.

This bill now goes to the Senate, where your committee have reason to believe its defects will be remedied. Certainly unless some amendment is made, not only will the effort to tax dogs be a failure, but the criminal dockets of the several counties will be burdened with cases, some of them possibly of a high grade; for it is not to be expected that men will quietly permit an officer to shoot their dogs on their own premises.

Your committee also prepared a bill on Vagrant Stock, which was unfavorably reported by the House committee on Agriculture, without a hearing, which was as persistently sought as in the case of the other bills.

It is well known that laws on this subject are unpopular; but your committee are convinced that this unpopularity arises solely from misconception of the law and right of the matter as now existing.

Many people think that laws forbidding the running at large of stock are an innovation, and the granting of a new right. But the fact is, Vagrant Stock, under existing law, as ancient as the right of property and as firmly established as the principles of justice, is an invasion of public and private right, which law-givers and law officers are bound to prevent.

It is settled, unchangeable law, that owners of stock must keep it within their own enclosures. The legislation asked, is simply to require officers of the law to enforce this as other laws are enforced, in order that private citizens may be relieved from the necessity of doing official duties and thereby causing bickerings and quarrels with their neighbors.

Public sentiment, however, is rapidly growing up to a just appreciation of this matter, and your committee think the day is not far distant when the doctrine that a man has the right to raise or keep stock at the public charge, or at the expense of his neighbor, will be regarded as an absurdity.

Your committee are, however, very happy to report, that Senator Davis, of Baltimore county, has prepared a bill on this subject, which, in the face of serious opposition, he has succeeded in getting passed to its third reading, and which your committee unhesitatingly endorse.

If not embracing all the legislation sought, it accomplishes much more than we hoped for under existing prejudices, and really with a little individual firmness among the people, no other legislation is needed.

Senator Davis is entitled, in the opinion of your committee, to the thanks of this association and of the agriculturists of the State at large, for his manly and independent advocacy of a measure, which, though eminently just, has by its special unpopularity, frequently driven legislators to vote against their convictions of right.

The State and nation would be infinitely bettered if law-givers would more frequently rise above popular prejudice, and, daring to do right, await, in obscurity if need be, the vindication and approval which time and sober reason never fail to bring.

The contrariety of opinion on the subject of county roads rendered it unadvisable, in the opinion of your committee, to submit any mandatory bill.

Your committee, therefore, prepared only a short amendment of the general law, empowering the county commissioners of the several counties, in their discretion, to employ skilled engineers to make and repair public roads and bridges.

The idea is to induce one or more counties to try the plan on a small scale, and to allow the usual appropriation for roads to be expended on one or more roads, under the discretion of civil engineers instead of ordinary road supervisors.

Thus we hope to have something practical to lay before the next Legislature, and, if warranted by results, to ask for laws more in detail and more positive in character.

Your committee were promptly accorded a hearing by the House Committee on Roads, and whatever be the fate of the bill submitted, we will ever retain a lively recollection of the very courteous and gentlemanly manner in which we were received.

GEO. H. STEUART,
Chairman Committee on Legislation.

Baltimore County Farmers' Union.

A meeting of this association was held at their hall near Cockeysville on the 7th ult. In the absence of Mr. Rankin, the President, Mr. John D. Matthews, V. P., took the chair.

Mr. Webster, from the committee on memorializing the legislature, reported the result of their application on the subject of vagrant stock, county roads, sheep-killing dogs, &c., and he believed the work of the committee had been executed in a satisfactory manner.

Mr. B. McLain Hardesty, one of the committee, said he thought the committee had been treated very shabbily during its visit to the legislature; that the Balt. Co. delegation appointed to meet the county committee, had only attended in part, several being absent, and those present had refused to make any promises.

After some further remarks the committee were discharged. The Secretary stated that he had received a communication from the State Agricultural Society, inviting this Club to send ten or more delegates to attend a convention of farmers on the 9th of April, to be held under the auspices of the State Society. The invitation

was accepted, and a delegation appointed in accordance therewith.

Dr. Merryman offered resolutions thanking Mr. Davis, of the State Senate, and Mr. Merryman, Chairman of the House Committee on Agriculture, "for their efforts to secure legislation in the interests of the agricultural classes of Balto. Co."—and that the efforts of Mr. Merryman, "in introducing and passing through the House laws for the protection of sheep against the ravages of dogs, are especially appreciated and commended by this body, and that we recommend its favorable consideration by the Senate; and that we deem it the best practical law that could be obtained under the present circumstances."

Mr. Webster called attention to the bill relative to vagrant stock, then before the legislature, and offered an amendment to it, which was adopted, and ordered to be forwarded to the legislature.

Mr. John Crowther offered a resolution for the appointment of a committee of nine to consider as to the propriety of forming a Farmers' Grange in the 8th Election District, which was concurred in, and the committee was appointed, of which Mr. A. J. Gent is chairman.

Resolutions were also offered by Dr. Merryman, which were adopted, relative to separating the road system from county politics, and giving it into the hands of the people to select supervisors by election. By the same, to investigate the subject of tolls on turnpikes.

Mr. Thomas Gorsuch introduced the following resolution, which was adopted:

Resolved, That a committee be appointed to investigate with what regard to economy the matter of county expenses were attended to by county officials.

The committee that was appointed consists of the following gentlemen: John Crowther, Jr., Thomas Pearsall, Thomas Gorsuch, G. H. Merryman, William Webster, B. McLain Hardesty and T. C. Bosley.

A committee of seven was appointed to investigate the propriety of establishing a newspaper or other journal in Baltimore county, that will be devoted to the advancement of all questions and matters pertaining to farmers' interests. Mr. Gent is chairman of the committee.

Some other local business was attended to, when the meeting adjourned to the call of the President.

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The State Grange of Patrons for Maryland

Held a four-days meeting in Baltimore the first week in March. Jos. T. Moore, of Montgomery Co., presided, and Ed. Hall, of Anne Arundel Co., acted as secretary. Mrs. Jos. Moore, on behalf of the committee appointed to receive visitors of the order from abroad, on the second day introduced the worthy master Dudley W. Adams, and Messrs. Aiken and Shankland, members of the National Grange, who were cordially received and invited to participate in all future sessions of the order. Mr. Wm. Saunders, of Washington, D. C., the founder of the order, and who is at present chairman of the Executive Committee of the National Grange, was made a full life member of this State Grange, and a committee was appointed to address to him a letter of thanks for his great services rendered the order.

During the session of the State Grange various business matters peculiar to the order were attended to, and a committee was appointed to wait on the State Agricultural Society, then in session, which was most cordially received by the latter, as stated in the account of their proceedings.

The following gentlemen were elected members of the State Executive Committee: John W. Corry, of Kent county, three years; James Nichols, of Prince George's county, two years, and Thomas F. Shepard, of Carroll county, one year.

A resolution was also adopted endorsing the declaration of principles as set forth by the National Grange at St. Louis, (as published in the March No. of the *American Farmer*), and the following, after which the grange adjourned to meet in Baltimore on the second Tuesday in August:

Resolved, That we acknowledge the influence of women in all great reformatory movements, and, therefore, most cordially invite the women of our State to assist us, by joining our order, in our endeavors to accomplish desirable reforms.

Resolved, That we recommend to all granges to encourage home business of all kinds, and to deal with their neighbors; but at the same time, we advise that they buy wherever the articles they need can be had cheapest for the cash, and to demand small favors, as cash customers are justly entitled to.

Resolved, That it is our duty as agriculturists to institute such means as in our power, for the relief of the agricultural interests of the State, which are, beyond a doubt, at this time in a very languishing condition.

The Executive Committee of the National Grange have determined on maturing a plan for the collection and dissemination of information throughout the country in regard to the condition of the crops. The new bureau will be located at Washington city, and Mr. D. W. Aiken, secretary of the State Grange of South Carolina, is to have charge of it. The information thus obtained will not be furnished to the press for publication, but to the State Granges, and by them to the subordinate granges, and to be exclusively for the benefit of the members of the order.

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The Dog Question.

Messrs. Editors American Farmer:

I have just finished looking over my agricultural papers, and I find in each one an inquiry as to how we shall lessen the scourge that now sweeps away into the sea as it were millions of our property and cuts off the revenue of the land. I mean that noble animal, the dog,—otherwise a howling devastator that roams wherever his whim dictates, sacred from all law. We have paid many extravagant prices over and over again for "hit my dog and you hit me" theory; now let us see if we cannot get something for being struck so hard by this gentlemanly cur of all immunity. Gentlemen, it is time some measures, certain and complete, were adopted to put an end to this wholesale devastation of valuable property by a thing that is no property, and yields not an iota to the production of the

country. The assessor comes to my house and asks "how many sheep have you?" and puts down opposite the number their value and the amount of tax I must pay upon them; he goes to a cabin half a mile from me and by the use of shouts, sticks, and kicks, works his way through a pack of hungry dogs to the proprietor thereof. "How many sheep have you?" says Mr. Assessor. "None. Aint able to own a sheep." "How many cows?" "None. Aint able to own none of them, nor feed 'em if I had 'em." And the officer requests this Nimrod to see him safely through this half a dozen or more curs to his horse without either word or mark of pen with reference to their value. That night they came in a body and (may be followed by their owner,) destroyed half of my flock. Now my orator politician who wants to go back to the legislature, and is therefore against the dog law, will dwell at length upon the attempt to trample upon the poor and humble in depriving him of his great solace, his dog. But tell me, does not the proposition that it is more just that those six dogs shall pay something towards the revenues of the country, than that my dead sheep shall, bear equity upon its very face,—aye, in every line of it? And yet, among the many contrivances gotten up to reach these curs, there has been no law proposed the practical working of which can be secured.

I have had in my mind for months, and in my portfolio for some time, a form which, if it will not check the destruction of taxable property, will at least make that destroyer pay something for the property he destroys—in such a manner, too, as that the introducer of it in our legislature need not fear that it will operate against his return thither. Here it is: dogs are property and must be so recognized by law. Be it enacted, &c., that every dog, of any breed, age or sex, within this commonwealth, is hereby made property and shall be assessed the same as other property; provided, that no dog, of whatever breed, age or sex, shall be assessed at less than five dollars. Very truly, J. D. BETHUNE.

Fauquier Co., Va., March, 1874.

Sheep Raising in Maryland.

To the Editors of the American Farmer:

I have read with much interest Genl. Goe's letters in the *Farmer* in relation to Merino Sheep, and also the comments of others upon the same subject. I am thereby most forcibly reminded of the old story of the shield. Unquestionably there are two sides to the question. I do not propose to discuss it, however, but I do desire to endorse most fully the position of Genl. Goe. I do not own a sheep, and of course am not, like him, open to the charge of having them for sale; but I do know, from experience and observation, that the Merino Sheep will do all for your worn-out lands that Genl. Goe says they will, and that no other kind of sheep will do it. I have not the time to analyze the subject and give the reasons why "Mutton" Sheep cannot be used for the improvement of the soil, like Merinos, but such is the fact, and I think I can give the reasons. It is said that the proof of the pudding is eating it; the adage may be applied here.

O. S. BLISS.

Georgia, Vt., March 12th, 1874.

Live Stock.

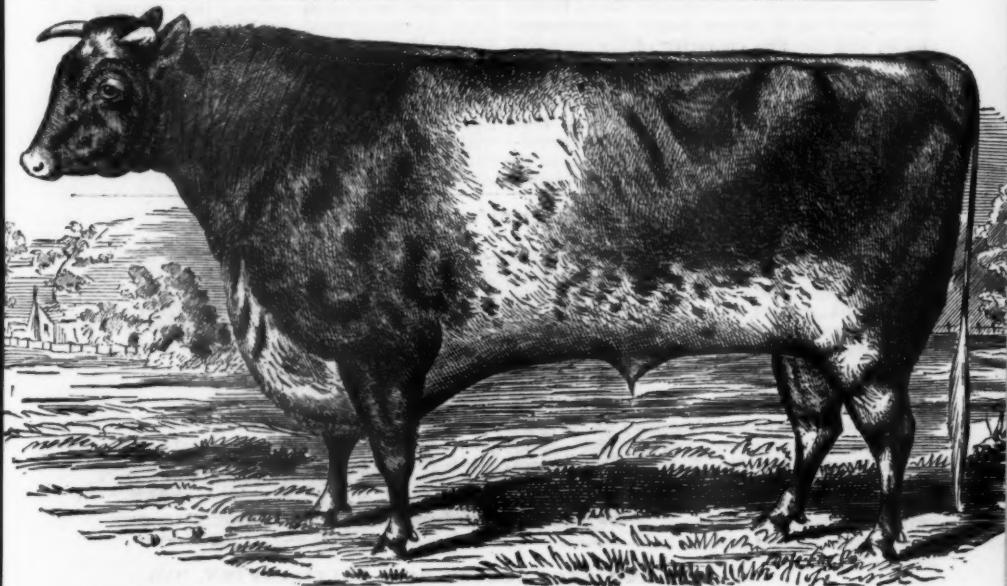
Mr. Coffin's Muirkirk Herd of Short Horns.

This fine herd, as already announced in these pages, is to be sold at public sale, at the farm of the proprietor, at Muirkirk, on the railroad between the cities of Baltimore and Washington, on Wednesday, the 13th of May, 1874. In this month's *Farmer*, we present the portraits of a Bull and Heifer, of this herd; the first was the sire of many of the calves now to be sold, and the Heifer is perhaps one of the finest of the lot; the bull, unfortunately, died some fifteen months or more since, but has left a number of his calves, which will do credit to his high breeding and character.

We have received at this office, *Bell's London Messenger* of Feb. 9th, the highest English authority for all matters pertaining to Stock and kindred matters, from which we copy the following description of this herd, in which these animals are more particularly described:—

A private catalogue of the herd of Short Horns belonging to Mr. Charles E. Coffin, of Muirkirk, Maryland, has been sent to us by a correspondent on this side of the ocean. It is very handsomely illustrated by Mr. Page. The portraits are those of Royal Briton (27,351, and in A. H. B. 9,014,) a pure Booth bull direct from Warlaby; Masterpiece, a magnificent Gwynne cow with three Duchess generations upon the Usurer cow Mystery, the daughter of Minstrel by Count Conrad; Rosamond 9th, a white two-year old heifer of the Warlaby mould, by Royal Briton; and Water Nymph, 18 months old, a heifer, if Mr. Page has not departed from his usual fidelity, about as good as high blood and moderately generous living can make a Short-Horn. She has the four splendid Booth sires, Royal Briton, Breast Plate, Dr. McHale and Vanguard, upon Water Witch, the dam of Water King, and derives her blood in the female line from Aylesby, though bred at New York Mills. *En passant* we must notice the Muirkirk Berkshires. "I keep on the farm," says Mr. Coffin in a catalogue note, "some very superior Berkshires, some of them imported from England, and from M. H. Cochrane, Canada. Any one wanting a pig that will keep easy, and, when cured, make very superior bacon, should have the Berkshire." The posture given by Mr. Page to the foreground sow of the trio portrayed, a sit-up of the cat fashion, and the "kind of sleepy Venus seem'd Dudu" expression of face, quite hit one's notion of "a pig that will keep easy."

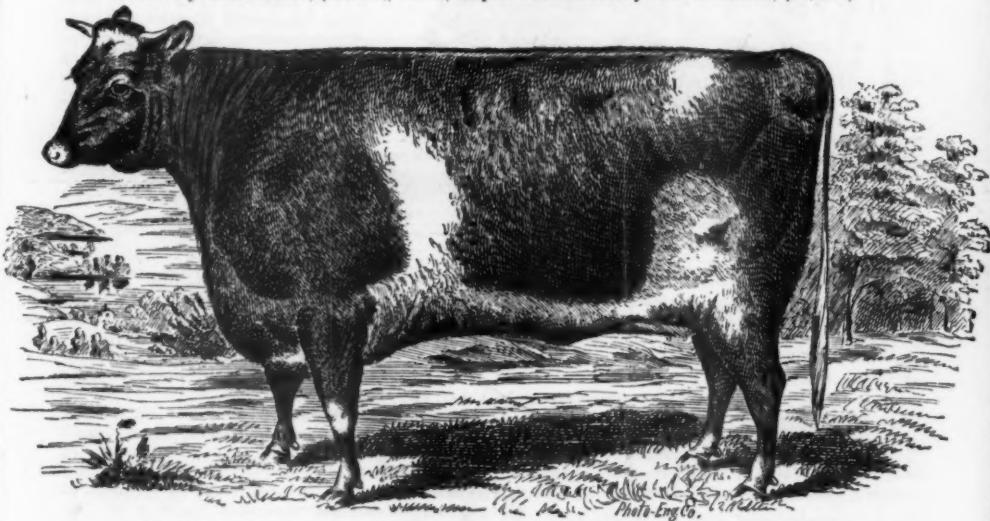
The bull, Royal Briton, bred by Mr. T. C. Booth, was bought by Mr. Gibson for Messrs. Walcott and Campbell and exported in the summer of 1869. He was by Lord Blithe, the own brother to Lady Fragrant, and from Royal Bridesmaid by the grand old Prince Alfred, tracing back to Bianca and the Strawberry and Halmby line. He and Mr. Cochrane's Royal Commander (29,857—exported in 1870) were the



ROYAL BRITON, 9,014, (27,351.) AT 4 YEARS—PROPERTY OF CHAS. E. COFFIN.

Roan, calved July 26th, 1868—Bred by T. C. Booth, Warlaby, England.

Got by Lord Blithe, (22,126.) Dam, Royal Bridesmaid by Prince Alfred, (13,404.)



WATER NYMPH, AT 18 MONTHS—PROPERTY OF CHAS. E. COFFIN.

Calved April 5th, 1871—Bred by MESSRS. WALCOTT & CAMPBELL, New York Mills, Oneida Co., N. Y.

two great Warlaby rivals on the Western shores of the Atlantic, and it was a moot point whether the States or Canada had the best Booth bull. A breeder here who wished to re-import Royal Briton was prepared to lay down a handsome

price for him. Mr. Coffin, then his owner, declined to part with him, but ultimately mentioned as his lowest figure, whenever he could spare the bull, a price which would have placed his favorite on a level with some of the most costly bulls of

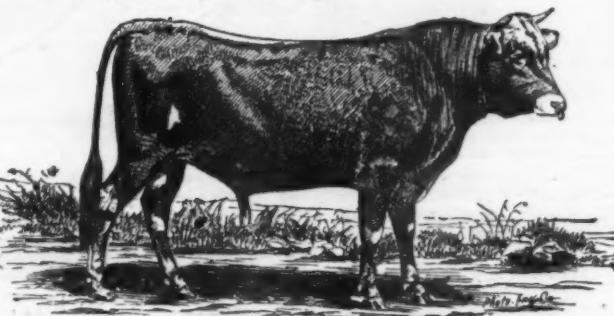
the day. Meanwhile, unfortunately, Royal Briton died on the 11th of August last, of pleuro-pneumonia; and the fine character of his progeny, calved in the herd during the autumn, is at once a compensation for his loss and an aggravation of his owner's regret. No more of the animals were attacked by the disease that proved fatal to the bull. To the end of December (an American correspondent informed us) 10 calves by Royal Briton, 7 heifers and 3 bulls,

had been born at Muirkirk. His successor is Lord Abraham, bred by Mr. Torr, and having Breast Plate, Prince of Warlaby, Dr. McHale and Baron Warlaby, upon the blood of Sylph by Sir Walter, with two intermediate generations of Earl Spencer's strain dividing Sylph from the Booth superstructure. The Muirkirk herd, very well bred, and worthy of the sires lately introduced, may be noticed more particularly upon another occasion.

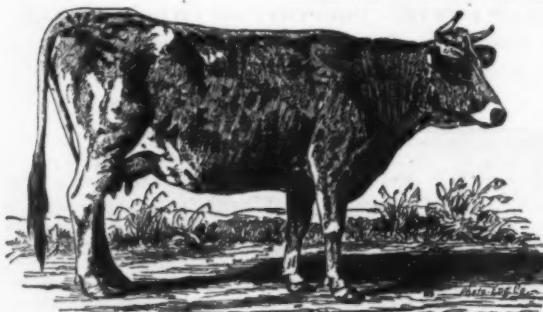
Mr. McHenry's Jerseys.

We give herewith, from the catalogue of the stock of Mr. McHenry, to be offered at public sale on the 8th inst., cuts of imported Southampton and Lilac.

Southampton (117) has always seemed to us one of the most superb bulls of his race that we have ever seen. He was selected in person by Mr. McHenry on the Island of Jersey, and is about six years old. His color is dark brown shading into black.



IMPORTED JERSEY BULL SOUTHAMPTON, (117.)



JERSEY COW LILAC, (340.)

THE DOG AND SHEEP LAW.—We have received too late for this number the petition of the Ruffin Agricultural Club of Cumberland Co., Va., to the legislature of that State, praying for the enactment of a law for the protection of sheep from the ravages of dogs. The statistics presented in the petition are very interesting, and show the absolute necessity of some steps being taken to preserve this valuable species of property from the damage to which it is continually subjected from the superabundance of worthless half-starved curs in all localities in the country. To show the feeling in Virginia upon this subject, we give the following extract from the letter of the President of the Club in forwarding the petition for publication in the *American Farmer*:

Here in Eastern Virginia, where there are such vast quantities of vacant lands, sheep husbandry

might be made exceedingly profitable. It costs nothing to raise sheep here. They may be subsisted the entire year without feeding. But nothing can be done in that direction until our legislature grants us the necessary protection against dogs. Every negro in the country has a dog, and some 4 or 5.

It is very strange indeed that our legislature, made up as it is of good and patriotic men, should hesitate a moment to grant the proposition. It is true that a class of our population is opposed to a dog tax, but they are composed mainly of negroes, whilst its advocates embrace all the intelligent property-holders of the State.

An important issue is made here, and it is nothing less than this: Whether a most valuable and important interest shall be sacrificed in the benefit of worthless dogs. Our legislature will be forced to meet this issue sooner or later, for the great agricultural masses are determined to push it to the bitter end. Yours, &c.,

Wm. HOLMAN.

Lilac (340) is of solid fawn color, with black switch, 8 years old, and bred by her present owner.

The catalogue contains of Jerseys, 6 bulls and 46 cows and heifers; 4 stallions, 31 mares and colts; 6 mules; 1 Devon bull and 3 Devon cows, and 3 yoke of oxen. The sale will take place without regard to weather.

Catalogues may be had at this office.

The farm machinery, implements, &c., will be sold on the 9th instant.

The stock can now be inspected.

Profit of Sheep Husbandry.

We give below an abstract of a letter from Mr. Henry C. Hallowell, of Montgomery Co., Md., which was read at a recent meeting of the State Agricultural Society. The experience which he gives is seconded by many, even in this State, where Sheep-raising can scarcely be said to be a part of our agricultural system. Only a few weeks ago a young farmer of Queen Anne's told us, as an illustration of the profit in them, that at that time he already had 27 lambs from 19 ewes, and all doing finely:-

There is scarcely a farm upon which a flock of sheep could not be raised, of larger or smaller size, and the profits derived therefrom would go very far towards paying our taxes. The beneficial effect upon the land is well understood.

To show what may be done in this respect, I give herewith an extract from the letter of a reliable and intelligent gentleman in New Jersey, detailing his success with a single flock. It is true that his proximity to a large city gives him superior advantages, but we can approximate to his results. I myself have repeatedly purchased flocks in the Fall for from \$60 to \$80, and have sold in the following Spring nearly \$100 worth of lambs and wool, having the flock left in good condition. My rule is to bring up the sheep into a tight yard *every night*. This does not injure them, even in the most sultry weather, as they are creatures of habit, and immediately lie down and ruminant, and are then ready to go to feeding as soon as let out very early in the morning. By having the yard-fence high and strong, they are secure from dogs. A three-quarter Southdown buck runs with them, and the lambs come in from the last of January to the middle of March. Last year my early lambs brought me five dollars each, some of them not much over two months old. By having a good shelter, not too close, the lambs will do well, and after they are a few weeks old there should be a place for feeding them separate from the sheep. They will thus improve very rapidly and soon be marketable. A pen made of pine poles across the sheep yard, accessible to the lambs and not to the sheep, will answer the purpose.

If our farmers can once be induced to ascertain the value of sheep, we will not be long in procuring a proper law for their protection, as we are very apt to become earnest about whatever touches our finances.

Extract from a letter of a New Jersey Farmer.

"As to sheep, I will cite an instance from my own experience. Year before last I purchased 100 head of sheep at the Philadelphia Drove Yards for \$150, mostly ewes. They had evidently been very badly cared for by some one, as they were very poor indeed. I gave them an excellent chance on grass during the summer and fall. Before feeding time I sold 40 of them for \$176, reserving 60 of the best, all ewes, which had been running with a full-blooded Southdown buck. They commenced to lamb about the latter part of January, and were all in by the first of March, and there were altogether 84 lambs. I began marketing them toward the latter part of March,

at \$9 per head for the first 30, and \$8 per head for the rest. I sold from this lot of 60 ewes and 84 lambs \$1,003 worth, and had 11 ewes and 3 choice lambs left. A number of these lambs went into market at seven weeks old for \$9 each. The lightest ewe weighed 102 lbs., and the heaviest 165 lbs. I take to myself the credit of bringing the sheep to such a satisfactory condition, but attribute no inconsiderable part of the success with the lambs to the Southdown buck."

We see from the foregoing that this careful and successful farmer paid \$150 for a flock of 100 sheep, sold \$1,179 worth, and still had 11 ewes and 3 lambs left. Of course he gave close and judicious attention to his business; but did it not pay? His figures speak for him. We of Montgomery cannot expect to equal him, not having a great city near us, but his letter shows that there is a handsome profit in the careful handling of sheep. Woolen mills should be busy upon many streams of our county. I hope the subject will be further discussed in your columns by abler and more experienced farmers than myself.

HENRY C. HALLOWELL.

Sandy Spring, Md.

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We have, in addition to those given in this month's number, another communication from Gen. Goe, giving a history of the establishment of his present flock, and the progress which he has made in bringing his Merinos up to the very high standard which he claims for them. It will appear next month.

The Apiary.

Transferring Bees.

Editors of the American Farmer:

Hoping that some of your readers may have been sufficiently interested in bee culture to follow my directions given last month, and prepare a movable comb-hive, I will now give directions for transferring the bees from an ordinary hive to the new one.

But first, I will state two axioms which every one starting in the bee culture on this system should know, and always bear in mind:

First.—A bee filled with honey will never sting except under very great provocation.

Second.—When frightened in their hives, bees always fill themselves with honey.

The latter part of April, when the fruit trees are in bloom, is the best time for transferring. The necessary implements are: a box the size of the bottom of the hive from which you wish to remove the bees, and about a foot deep; a box or hive to use as a decoy hive; a long knife to cut loose the combs, and a hatchet and old chisel. Now on a bright warm morning, raise your hive on blocks about an inch from its foot-board, and blow under it a few whiffs of smoke,—the smoke of dry rotten wood is best,—and wait about five minutes for the bees to fill themselves with honey. Then remove the hive to a shady place fifteen or twenty yards from its stand, and set it on the ground, bottom upwards, putting the

decoy hive in its place to amuse the bees which may return to their old stand. Now set the box which I mentioned first on the hive, and wrap a cloth around them so as to prevent any bees escaping at the place where they join, and with two sticks, or the palms of your hands, beat smartly on the sides of the hive near the top; continue this at short intervals for twenty or thirty minutes, and most of the bees will ascend into the box. When you find that the greater part of them are in the box take it off and set it on a sheet near the hive, raising the front edge about an inch to allow the bees which you will brush off of the combs to enter. With a long knife cut the combs loose from one side of the hive, and then with the chisel, pry that side off, being careful not to break the combs in doing it. After you get the side off, remove the combs, brushing any bees which may be on them in front of the box in which you put the swarm, and as soon as you get the bees off put the comb in a box and cover it with a cloth to keep off strange bees.

When you have all the combs out take them into a room which the bees cannot get into, in which you must have a table, or a wide board laid on two barrels will do; and your Langstroth hive. Lay a comb on the table and put a frame on top of it, and with a sharp but coarse-edged knife cut the comb so as to fit tightly in the frame; it is not necessary that the comb should reach from one end of the frame to the other; but it should fit tightly from top to bottom; be very careful to get the same side of the comb upwards in the frame as was at the top of the hive; you can easily see which is the top as the cells incline a little upwards; raise the frame and comb on its edge and tie several pieces of cord around them to hold the comb in, put all the worker comb into the frame and hang the frame carefully in the hive; if you have not comb enough to fill all the frames put in an empty and a full one alternately. At this season of the year it is not necessary to put more than eight or ten pounds of honey in the hive, and as it is much harder to keep combs with honey in them in the frames, any more than this should be left out, as should also all the drone comb except about three or four inches square; the cells of the drone comb are much larger than those of worker comb, so that it is easily distinguished. Now carry the Langstroth hive to the stand of your old hive, put it just where the old hive stood, spreading a sheet under it which should project two or three feet in front. Shake the bees from the box and the decoy hive on the sheet close to the new hive, and in a few minutes they will all enter it, when the sheet should be removed.

In three or four days the bees will fasten the comb securely in the frames, and you must then open the hive and cut out the cords, or they will waste much time in trying to remove them. I hope in future numbers to give you some further directions on this subject and on different ways of obtaining surplus honey.

D. M. WORTHINGTON.

Howard Co., Md.

[We thank our correspondent for these plain practical instructions upon this interesting branch of rural economy.—*El. A. Far.*]

Pa. Fruit-Growers' Association.

(CONTINUED FROM OUR LAST.)

The Roses best suited for General Cultivation, their Management, &c.

At the convention of the Pennsylvania Fruit Growers, of whose proceedings we last month gave some account, Mr. Charles H. Miller, an experienced rose grower and general florist of Germantown, Pa., read a very interesting and carefully prepared essay on this subject. He prefaced his remarks on the general treatment of this class of plants by giving a list of roses which he thought were among the best, if they were not the very best, in cultivation. His list embraced two divisions,—first, those newer roses lately introduced by eminent rosarians of France; and second, the old drier kinds, proved to be good and which ought to be in every garden. Of the first he named of *Hybrid Perpetuals*: Felician David, MacMahon, Mrs. Laing, Andre Dunant, Antonie Verdier, Baronne Louise Uxkull, Coquette des Blanches, Etienne Levet, La Favorite, Pierre Izambart, Richard Wallace, Vicounte Douglass, Victor Verne, Alexandre de Humboldt, Eugene Vazin, Lena Turner, Madame George Schwartz, Perle Blanche. *Teas*: Comtesse de Nadaillac, Henry Lecoq, Le Nankin, Ma Capucine, Madame Jules Margotten, Perfection de Monplaisir, Souvenir de Paul Neron, Annette Seaut, Bianqui, Catherine Mermet, Jeanne d'Arc, La Jonquille, Marie Van Houtte, Coquette de Lyon, Hortensia, Madame Azelie Imbert, Madame Berard, Madame Ducher. *Noisettes*: Reve d'Or. *Bourbons*: Souvenir de Nemours.

Of the old favorites, indispensable to every general collection, the following were named: *Hybrid Perpetuals*: Baron Haussman, Baron Prevost, Beauty of Waltham, Boule de Neige, Charles Verdier, Charles Wood, Coquette des Alpes, Dr. Andry, Duchess of Sutherland, Felix Genero, General Jacqueminot, General Washington, Glory of Waltham, John Hopper, Jules Margotten, La France, La Motte Sanguine, La Reine, Louisa Wood, Madame Barriot, Madame Charles Verdier, Madame La Barronne de Rothschild, Madame Victor Verdier, Marie Bauman, Paul Neron, Princess Christian, Marquise de Castalane, Comtesse d'Oxford, Thyras Hammerick, Velours Pourpre, Victor Verdier, Virgil, Xavier Olibo, Geant des Batailles.

Bourbons: Amelia de la Chapelle, George Peabody, Gloire de Rosamene, Hermosa, Lady Canning, Madame Gustave Bonnet, Souvenir de la Milmaison. *Mosses*: James Veitch, Madame Wm. Paul, Perpetual Moss, Wm. Lobb. *Chinas*: Agripina, Archduke Charles, Ducher, Cels, Mrs. Bosanquet. *Noisettes*: Aimee Vibert, Fellenberg, Lamarque, Ophire, Solifatare.

Teas: Adrienne Christophel, Belle Lyonnaise, Bon Silene, Comtesse de la Bath, Devonensis, Gloire de Dijon, Homer, Hypolite, Isabella Sprunt, Lays, Madame Russell, Madame Trife, Marechal Neil, Safrano, Souvenir d'un Ami, Triomphe de Luxembourg.

One condition of successful rose culture, said Mr. M., is good loamy deep dry soil. It is useless to put manure on wet soils; and after good drainage, deep trenching is the next essential. Old pasture land or good corn ground will grow

roses, and if the soil is rather stiff so much the better; indeed, plenty of manure and a clayey loam, are essentials of successful rose growing. Thin light sands are unsuited for roses, as they suffer in such soils from drought and are liable to the ravages of the red spider. It is not wise in making a rose garden to use the old soil of a cultivated garden, but rather to gather newer earth from good corn fields, or just under the turf of a good pasture, and if the partly rotten sods are mixed with it, it will be so much the better.

In planting, do not put isolated specimens on the lawn, they being in bad taste. Select the most sunny and airy spot the garden affords; but not the most conspicuous, however, since when they lose their bloom they are not attractive objects. To see roses in all their freshness and beauty, see them with the dew on. Plant in beds,—the most suitable shape of which, for a small collection, is a circle with the sides scolloped toward the centre. If about eight feet in diameter, this allows every plant to be reached without treading on the bed. The most vigorous should be planted in the centre and the dwarf growers around the edge. Climbing and Pillar roses are useful, either trained to a tall stake in the centre of a rose bed, where the effect is very pleasing, or planted among the shrubbery, where their bright flowers enliven the surrounding scene.

In pruning roses, the strong and robust varieties need little cutting back; the dwarf kinds require it to be done thoroughly. The latter should be cut to within a few buds of the base of the year's shoots; the former should have only the weak and unripened wood cut away. Roses are improved by making an annual lifting a part of their cultivation,—this gives an opportunity of pruning the root, &c.,—and the best time to do it is just before the fall of the leaf; they then are established again before winter sets in. Roses grown in pots ought not to be planted out in fall, only in spring; and during the growing season all need plenty of water and an occasional supply of liquid manure.

Mr. Meehan gave his treatment of tender Tea roses. When winter is about to set in, cuts the tender tops off, leaving them about a foot high, and over each turns a barrow of earth. Another way is to take them up and bury them entirely under a hot-bed sash. Has had some success with the Prairie Rose as a stock for working tender roses on instead of the Manetti.

Mr. Saunders said he pegged down his tea roses and at the end of the season the whole surface is covered. Tender roses will succeed this way. In winter covers the whole bed with sand.

Mr. Fuller takes up his tender roses, digs a trench and puts them in it, and in the spring takes them out, cuts off their heads and plants them out again. Plants in masses.

Pres. Hoopes plants his roses in masses, one kind in a bed. Takes them up in winter and packs in boxes which are filled up with dirt. Tender kinds like Devonensis and Safrano do well kept in this way.

[The above properly formed a part of our report of the proceedings of the Penn. Fruit-growers, given in our last, but crowded out from that issue will now be found timely and interesting, and serviceable to those making rosaries.

In the *Gardener's Monthly*, for March, we find the entire essay of Mr. Miller, and those desiring fuller details and lists as given by that experienced rose culturist would do well to read it in that excellent journal, which under the management of Mr. Meehan, is doing so great a work in promoting American horticulture.—*Eds.*]

The Fireside.

Farm Life.

A farmer should be as much a business man as a merchant or a lawyer: like them he requires brain as well as capital, and more brain than is generally conceived necessary. Many men who for the want of brain, or some unknown cause, have deserted rural life to enroll themselves upon the lists of doctors, lawyers and commission men,—giving as a reason for their departure from “the most healthful, the most useful and the most noble employment of man,” that farming did not pay. Why, I would ask? Is it not either from the want of a head to plan successfully, or of industry to carry out plans well laid? There must be some deficiency in such a man, for his neighbor lives comfortably, accumulates and grows independent in his maturing years. Any industrious man can make money, but the man of thought who looks forward to the future, who counts his outlays, day by day, to see that he is not overstepping his income, alone can save it. The pleasures which a successful farmer may enjoy are innumerable. He rises in the morning, beholds the beauties of the setting stars; the silvery orbs faint from his vision whilst he beholds the glories of the distant eastern skies; he sees a gleam of light shoot higher and higher above the horizon, until, at last that powerful orb which may well be called the king of the firmament, looms forth with splendor to give warmth and light. Before this all was still, but now the world awakes from slumbers all, both industrious men and the beast creation, whilst the birds of the air and the locusts in their season give him a hearty greeting with melody and song. Through all this the sluggard sleeps, and his help sleep also; they awake only to get at their work in time to save themselves from the wrath of their employer, made cross and stupid by too much sleep. Such men had better be professional men or something else than farmers, since they are calculated to demoralize the whole working class of a community, for hands will desert the industrious man, who calls them up before the break of day, to work ten hours instead of twelve, and receive the same pay. The hands get demoralized; they sleep late, as do their masters; they lose nothing pecuniarily, but the farmer is eventually consumed, his all slowly dwindling away; until at last he comes to the conclusion that farming does not pay. He deserts the sinking ship, swims off to another business, and, if popular, succeeds in living on the community by aid of a good address as a doctor, a lawyer, or most commonly a commission man. I do not mean to say that all doctors, lawyers and commission men are of this stamp,—far from it. Many of them are men of

the highest intellect—prompt and correct in all business transactions. But such men never broke down as farmers, and most probably would be successful in any branch of business they might see proper to pursue.

We farmers have absolute control over our business, and are dependent on no earthly power except Labor, which we can easily manage with a little care. We are not worn out by keeping late hours, exhausted and bleached by office duty, nor compelled to sacrifice all pleasure by the faint hope of pocketing a dime. Our presence is much needed on the farm at all times to insure our success, but our business is in our own hands, and if necessary we can fix our pleasures to suit our business, or the reverse. This independence which a farmer enjoys is a great comfort; he feels entirely free, and is able to act according to his desires, regardless of the rest of the world. He enjoys the fruits of the earth in their freshness, and has no cause to restrain his appetite in consequence of cost; all is produced for his enjoyment. His horses, made fat by the production of his farm, carry him on his journeys pleasantly, whilst he enjoys the freshness of a country air. He does not have the princely income of the merchant or the professional man, but he enjoys more independence and more true happiness on a far less amount. The beauties of a farm can but be admired by any one of taste. The landscape attracts the eye at first glance, its diversified surface clothed by nature's verdant robes. The corn fields present a grand appearance, as each stalk, with tasseled top and silken ear, bows gracefully under a summer breeze. The wheat crop, too, a sea of gold at harvest, dazzles the eye as it wavers like the billows of the sea. These grain crops, the reward which industry brings, show what man by careful labor is capable of producing, as well as the power of the Creator to turn the dust of the earth into palatable food for man. To watch the changes which plants undergo is a pleasure. The seed planted, springs forth from the earth as a plant, its vigor of growth is admired, its bloom, its fragrance, excite a feeling of happiness and content, but the harvest fills the heart with joy to reap the fruits, the emblem of reward. The beauty of our herds adds much to the enjoyment of our business. Stock in the fields, and often the herd with the surrounding landscape produces a picture unsurpassed by any in the galleries of art. Our walks are private, free from the bustle of the town,—the beasts of the field too busily feeding to observe us, and the birds who greet us with pleasant song alone are near our pathway.

Such are some of the beauties and pleasures of farm life. Yet, farmers are discontented, and why? I suppose from the fact that they enjoy more liberty of action; are solely their own masters; have more comforts and luxuries from the capital invested than any other class. Discontent seems to be one of the attributes of human nature. The more comforts the Almighty heaps upon us, instead of being grateful and contented, we become dissatisfied, and the greater are our cries that we are a persecuted race, and should seek some other employment. I can conceive of no employment that is more conducive to health, better calculated to enlighten the mind, to produce more true happiness and virtue, that better illustrates the exist-

ence and goodness of a Creator, than does farm life. Yet farmers say, they are oppressed, their sons never shall become tillers of the soil, and that they consider it death to their daughters ever to be farmers' wives. Farmers (I mean landholders, those that work their land directly or indirectly,) are destined to rule this country. They move the whole machinery of a community; without their aid the City would starve, merchants become bankrupts, the whole machinery of the world come to a standstill. Did not the failure of one single product of the farm some years ago in Ireland, bring trouble upon the whole Province? Why, half her population would have starved had it not been for the farmers of the United States who sent over their Indian corn to the relief of her people! So might I give other instances in which farmers have shown their importance and the great value of success in their pursuit. Does not the whole wealth of a country come directly or indirectly from the soil, by the labors of the farmer? Are not the erection of cities, their towers, monuments, churches, our fortresses, railroads, canals, and in fact all internal improvements, due to the labors and toils of our farming community? Yes. The farmer, by the exercise of his brain and his muscles, brings from the earth food and raiment for all men. His crops are sent to the markets; transportation lines are established and supported by his products; the money he receives as compensation for his labors is not retained by him; he is liberal with it, he gives to the merchant one dollar for an article that is worth one half that amount; he deals liberally with all tradesmen and mechanics. This extravagance should be suppressed; farmers should look more to their interests; form combinations to protect themselves. It is in their own hands to counteract this evil; let them do it. Let them combine to cut down the immense profits on all manufactured goods.

The landholders of England are the noblemen, the rulers of the land; they are the lords of the land. So should we be, if we see proper to exercise our rights. Farmers, pine not for the days of slavery to return; in them we ruled the land, not because of slaves, but because we then exercised our rights; our mightiest stars came from the rural districts,—our Washingtons and Jeffersons were farmers. Then rebuke not your sons of talent for becoming farmers, rather encourage them; let your loveliest daughters assist them in their labors, and we, the farmers, will once more control this country and have the high esteem and respect to which our position entitles us.

Queen Anne's, Md.

E. B. E.

IMPURE MILK.—At the East, especially in New York and Boston, a considerable warfare has from time to time been waged against the middlemen and dealers who supply those cities with milk, in consequence of the great adulteration which has been discovered in the article sold. In Boston, the citizens as a body took the matter in hand, and an association was formed to supply the pure article to the consumers as received from the farmer, and, after a great conflict with the middlemen, who threw every obstacle in the way of the association, finally, we believe, fully succeeded in establishing the business on a firm and permanent foundation. The question involved

in this matter is one of paramount importance, involving the health of every family in the community, and more especially the very lives of thousands of the infants annually born in the city. The Board of Health of Baltimore has recently had its attention drawn in this direction, and have, through Prof. Tonry, of the Maryland Institute, had a number of samples of milk, as sold in this city, analyzed,—resulting in showing a great adulteration of the milk produced, both in the city and country; by which it will appear that city cows fed on dry provender give purer milk than country cows. Some of the milk coming from cows fed on swill, under the microscopic examination of Prof. Tonry, showed great decomposition, some bloody matter and sour acids. All the milk examined more or less exhibited the presence of acid. Some of the milk sold in the city, it is said, when offered to dogs and cats was refused by them, while pure milk was drank with avidity. Prof. Tonry had under examination fourteen specimens of milk.

HOW TO GET ALONG.—Do not stop to tell stories in business hours. If you have a place of business, be found there when wanted. No man can get rich by sitting around stores and saloons. "Never fool" in business matters. Have order, system, regularity, liberality and promptness. Do not meddle with business you know nothing of. Never buy an article you don't need, simply because it is cheap, and the man who sells it will take it out in trade. Trade in money. Strive to avoid hard words and personalities. Do not kick every stone in the path. More miles can be made in a day by going steadily on than by stopping. Pay as you go. A man of honor respects his word as his bond. Aid, but never beg. Help others when you can, but never give what you can't afford to, simply because it is fashionable. Learn to say "no." No necessity of snapping it out dog fashion, but say it firmly and respectfully. Have but few confidants; the fewer the better. Use your own brains rather than those of others. Learn to think and act for yourself. Be vigilant. Keep ahead rather than behind the times. Readers, cut this out, and if there be folly in the argument, let us know.

HAPPY EVERY DAY.—Sidney Smith cut the following from a newspaper and preserved it for himself:

"When you rise in the morning form a resolution to make the day a happy one to some fellow creature."

It is easy to don a left-off garment to a man who needs it; a kind word to the sorrowful—an encouraging expression to the striving—trifles in themselves as light as air—will do it, at least for the twenty-four hours. And if you are young, depend upon it, it will tell when you are old. Rest assured it will send you gently and happily down the stream of time and eternity. By the most simple arithmetical sum, look at the result. If you send one person, only one, happily through the day, there is three hundred and sixty-five in the course of a year. And suppose you live forty years only after you commence that course of medicine, you have made 14,900 beings happy at all events for a time.

DOMESTIC RECIPES.

TO SEASON SAUSAGE.—Cut the meat in small pieces for grinding through a cutter, and weigh in order for seasoning. Then for every 40 lbs. of meat take 13 oz. of salt, 4 oz. black pepper, 2 oz. sage, 2 oz. sugar and 1 oz. of saltpetre, all of which mix well together, then mix this with your meat, put it through the cutter ready for use. This plan is reliable; I have followed this direction for years satisfactorily.

TO CURE BACON OR BEEF.—To 4 gallons of water, add 8 lbs. salt, 2 oz. saltpetre and half a lb. brown sugar, to be boiled and skimmed; when cold pour over the meat. When packed, a little salt in the bottom of the cask is all that is necessary. The hams and shoulders should be rubbed in fine salt. No danger of spoiling any meat with this treatment. The bacon to be drawn out in 30 days and smoked. J. S. E.

SPLIT PEA SOUP.—Put a quart of split peas in enough water to cover them, add half a teaspoonful of salsiteratus and let remain all night; the next day take them from the water in which they were soaked, put to them two quarts of water and a pound of salt pork, with a bone of beef. Let all boil gently until the peas are tender, then add six good-sized potatoes, and pepper to taste. Fifteen minutes afterwards add a tablespoonful of butter and flour each, worked together, and when the potatoes are thoroughly done, serve.

MELTON VEAL.—This is a standard dish at the Melton races in England, and is composed of alternate slices of veal and ham. Butter a good sized bowl, and slice as thin as possible six hard-boiled eggs; then line the bowl with the slices. Place in the bottom a layer of raw veal steak in thin slices, and sprinkle over it a small quantity of salt, pepper and grated lemon peel; proceed in the same way with thin slices of raw ham, but leave out the salt. Cover it with a thick paste of flour and water, so stiff as to be rolled out. Tie a double cotton cloth all over the top and boil three hours, putting it into the boiling water at the first and keeping the water just below the level of the bowl. When cooked, take off the cloth and paste; let the veal stand until the following day; then turn it on a platter, and cut very thin after it comes to the table; garnish with sliced lemon and parsley. It is "a dainty dish to set before a king." It is also a side dish for dinner, and excellent for breakfast.

TO COOK A BEEFSTEAK.—Put a frying-pan over the fire till it becomes quite hot. Have your steak well pounded, lay it on the hot, dry pan and cover as tightly as possible. Turn the steak every half-minute; it must be done quickly, so that it may not be long uncovered. When nearly done, sprinkle on pepper and salt; lay a small piece of butter on the steak, and serve hot.

SILVER CAKE.—Two cups flour, one and one-half cups sugar, one-half cup sweet milk, one-half cup butter, whites of four eggs, scant teaspoonful cream tartar, scant one-half teaspoonful soda; flavor with vanilla; bake in slow oven.

Farm Accounts.

Messrs. Editors American Farmer:

Could you not give us some idea of keeping Farm Accounts? There are a very few farmers who keep accounts, and simply because they do not know how. I am fully persuaded that if each farmer would keep a close and accurate account of all his operations, he would become a better and more successful one. It would teach him economy, and then he would have the satisfaction of knowing exactly how much it cost him to raise a bushel of wheat, or a hundred pounds of tobacco, what his bacon costs to raise and cure, his cattle, &c.

By keeping such accounts and *studying them*, we would be enabled to see how we could perhaps lessen each expense; for after all it is not what a man makes, but *what he saves*, which adds to his prosperity, and as the year has just commenced it is the right time to begin and start our accounts; but the trouble is, **NOW TO BEGIN.**

It has always seemed to me to be more difficult to keep an accurate farm account, than a regular set of mercantile books. To illustrate: we use fertilizers on our tobacco, sow the land in wheat, and grass or clover. Now how much of this is charged to the tobacco; how much to the wheat; and the clover or grass; and to the land for actual improvement in the latter? I think you, or some of your correspondents, could give us valuable information in this matter of farm book-keeping.

Do you know any thing as to the value of gas-house lime as an improver of the soil, and how and when would you apply it; would it pay to use it, if to be obtained at 2cts. per bushel?

Your valuable periodical, *The American Farmer*, is growing in interest in our community.

Can you not occasionally give us a diagram of farm buildings, barns, stables, &c.? ENQUIRER.

Amenia Co., Va., Jan. 20th, 1874.

[The subject our correspondent brings up is one of such importance that we have often dwelt upon it in the *Farmer*. It is undoubtedly a great advantage for every farmer to keep a simple account of his receipts and expenditures, and it will be found more useful and satisfactory to do this in detail, as is here suggested.

A wide field of inquiry is opened up in pursuing the question, and methods and opinions will widely differ, but we should be glad to hear from any of our readers who can present a simple and efficient form of keeping farm accounts. Many doubtless would be glad to profit by the experience of those who follow a satisfactory system. Gas lime is commonly used the same as, and indifferently with, ordinary lime, but after some exposure to the air. We think it would be hazardous to apply it to any growing crop, on account of the caustic properties it contains, the sulphuric or sulphurous acid present being often strong enough to kill grass when applied on sod. We should advise its application in the fall, or to corn ground as soon after it is plowed as possible, in order that the Spring rains may wash away the deleterious impurity before planting time. At the price named he should consider it very cheap.—*Ed. A. Far.*]

The Agricultural Implement Trade of Baltimore.

CONCLUSION.

D. KNOX & CO.

This is one of our up-town firms, an offspring from the old house of Sinclair & Co. They are situated on Camden street, near Sharp, and keep a general assortment of farm and garden tools and machinery, field and garden seeds, &c., which are taken up by the Anne Arundel and other western shore of Maryland farmers, with whom, as they inform us, their main trade is done, and for whom they are conveniently located.

In addition to a general stock, which we have not space to detail, this concern runs as a specialty the "Superior" Reaper and Mower—a machine which differs from all others of its class in the application of a novel device, as used for such a purpose, for effecting the driving of the knife, namely: *a wheel and a screw*, there being no cogs at all used in the machine. It is very simple in its construction, there being but two shafts, and in the machine itself not a single bolt. There is a lever for lifting the cutter bar, and one for tilting the knife on rough ground or in tangled grain. It is contended that the absence of many and intricate parts renders the "Superior" very light of draft, whilst its durability is claimed to be equal to any machine made, a special guarantee being given that the wheel and screw, which it would be supposed would wear out soonest, will out-wear the machine. The Mower is made for a dropper attachment.

The Montgomery Fan is another of the prominent machines kept by this house, as is also one, which, though not strictly agricultural in its character, is needed in every farmer's house, the Doty clothes washer, the most efficient, indeed the only efficient washing machine, it is said, yet produced.

A full line of plows and other necessary farm implements will also be found here.

LINTON & LAMOTT.

This is one of the old firms in this line, having been for many years engaged in the manufacture and sale in this city of machinery and implements for farm use.

The well known Linton Sweep Horse-Power has been a specialty of theirs for a long while, and has earned a reputation for effectiveness and durability which is very creditable.

In connection with this, this house sell large numbers of the Geiser Separator, a machine which combines the advantages of being of good capacity, doing efficient work, and sold at a moderate price.

Messrs. Linton & Lamott are located at No. 70 North Street, where, besides the above, they keep each harvest season some popular Reaper and Mower. We believe this year they are running on the Hubbard.

THE MARYLAND HORTICULTURAL SOCIETY held an adjourned meeting on the 17th ult., but the attendance was very slim and no business was transacted save to instruct the Secretary to invite persons having plants to exhibit them at the meeting of the Society to be held on the 21st inst., to which date an adjournment was had.

Lawn and Flower Garden.

Floriculture, &c.—April, 1874.

The extreme mildness of the past winter, has caused a great many of the late spring plants to bloom somewhat earlier than usual, and as a consequence there will be more work in potting this month than usual.

Camellias, have almost done flowering, and such as need it should now be shifted into larger pots. A good soil, suitable for them, is, two parts loam to one of decayed leaf mould and sand. Be sure to give plenty of drainage; place them in a close warm atmosphere, and keep moist, till they begin to throw out roots.

Azaleas are now in full bloom and should have plenty of light; they are easily grown from cuttings, and should be potted in a compost of sandy loam and decayed vegetable matter. Achimenes, Tydeas, Caladiums, Amaryllis, Gloxinias, &c. &c., should now be started into growth; give them water sparingly until they have sent out a good supply of roots. Geraniums and Fuchsias should be shifted into larger pots, especially the Fuchsias; never let them get pot-bound until they commence to show flower; an occasional watering of liquid manure will keep them wonderfully. Put into the propagating bed such cuttings as are needed, and don't fail to syringe every morning; the red spider will now commence to make its appearance,—a good supply of water will keep it down.

Fumigate every week with tobacco, to kill green fly. Keep the fire heat down as much as possible, and when the weather is very mild discontinue its use entirely. Now all seeds needed for planting; there is still plenty of time. It is very necessary to re-arrange the plants in the greenhouse every ten days, turning those that have grown to the light with their backs to the sun; give those plants that have bloomed plenty of light and room to make good wood for next year's show; it is a bad habit to throw them under the stage because they are done for this year.

Flower Garden and Pleasure Grounds.

Everything about the pleasure ground should now be made to look neat and tidy by removing all dead branches, leaves and other offensive matter. Should the grass on lawns have become exhausted by being drawn out by frost, or killed by sun, a good top dressing of manure will help it; wood ashes mixed with a good rich earth makes a capital top dressing. All flower beds and borders should be spaded over and put in readiness to plant; spade in plenty of manure. Sow under glass, such seeds of perennial and annual plants as are desired in May; transplant when large enough to handle. This is a good time to multiply the roots of Peonies, Phloxes, Delphiniums, Dielytra Spectabilis, &c. &c.; always see that the part cut off has a terminal bud, else it will never grow. It is very easily accomplished, by a sharp knife, or, when the roots are large, by a spade.

There is still plenty of time to plant such trees as are needed; it is not well to put it off too long, as the sap rising very early will receive a severe check, and, unless planted well, will soon die.

Evergreens can be planted on to the middle of May; in fact it is the best season for them, as they will then be throwing out numerous fibres around the collar of trees from which the roots come to support the tree through the summer.

This month can be well called the working month of the year, and the gardener will certainly have to work faithfully, that would do his work thoroughly. It would be well to take out all weeds and foreign substances from the lawn; a wet day is best calculated for this work,—a light weeding fork, or trowel, and the work can soon be done.

A. BRACKENRIDGE.

On the Cultivation of Potatoes.

At the February meeting of the Chuckatuck, Va., Farmers club, Mr. Ames, a noted trucker of that section gave the following account of his practice in growing Irish potatoes, for which he has quite a reputation, and it has been forwarded for publication in *The American Farmer*.

Prefers Early Rose variety because earliest, and stands highest on Northern markets; cuts the seed to two or three eyes; prefers heavy dry soil; plants in drills, ten to twelve inches apart; drills three to three and a half feet apart, latter preferred; lays off by running twice to the rows, thus making straighter and more uniform in depth; gets the manure in good order, free from clods, and then at any odd time, (before ready to plant,) days when ground is frozen, &c., puts the manure in the drill about a good horse load to the hundred yards. When ready to plant, sows the guano, (has used Chincha and Guanape, side by side and sees no difference,) ten or twelve pounds to the hundred yards, right on the manure; then takes something that can be run through this manure, (say for instance a harrow frame with two straight round teeth in centre,) mixing manure and guano, and leaving a small furrow in the middle, in which plant the potatoes as before said, ten to twelve inches apart, and cover with two furrows about four inches deep. Just when ready to come up, harrows crosswise; when four to six inches high, bars off with turn plow, and runs cultivator between rows before blooming. When ready to dig, plows them up with heavy turn plow (like No. 11, Dixie,) and puts in hands to pick, sort, and barrel in the field; considers twenty-five bbls. good average yield from one of seed, though sometimes makes forty or more. Compost manure in following manner, in the field, or convenient to it: thirty loads of muck, (gotten up in summer and chopped over before frost,) five loads Indian shell marl, thirty loads scrapings of hillsides, fences, &c., and eight or ten loads bought stable manure, well mixed and used at above rate, viz: a good one-horse load to the hundred yards in drill.

II.

CATALOGUES OF MR. COFFIN'S SALE may be had at this office. The opportunity which will be offered here of improving the stock of a whole county by the purchase of some of the young bulls, which will doubtless be sold very reasonably, ought to be availed of by the readers of the *Farmer*.

The American Farmer.

PUBLISHED ON THE FIRST OF EVERY MONTH

BY SAM'L. SANDS & SON,

9 North street, near Baltimore street, Baltimore, Md.
(sign of the Golden Plover.)

SAM'L. SANDS, } Editors and Proprietors.
W.M. SANDS, }

SUBSCRIPTION, \$1.50 a year, in advance. To Clubs
of five or more, \$1.00 each. For \$10, eleven copies will
be sent.

ADVERTISING RATES.

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One Square, 10 lines.....	\$ 1.50	\$ 4.00	\$ 7.00	\$ 12.00
Quarter Page.....	6.00	15.00	22.50	35.00
Half Page.....	12.00	25.00	40.00	70.00
One Page.....	20.00	45.00	75.00	190.00

Cover Pages subject to special contract.
Transient Advertisements payable in advance—all
others quarterly.

Advertisements should reach us by the 20th of the
month, to secure insertion in the succeeding issue.

APRIL 1, 1874.

Our Premium List.

The time limited for the reception of subscriptions for which we offered premiums, expires with the 1st of April. Those who claimed premiums for the subscriptions sent, before the date named, have been supplied, and any who are entitled to them, according to the terms, will be promptly attended to, on application.

A singular fact in connection with this matter is, that in but a *very few* instances, those who have forwarded clubs for the present volume have either said nothing about competing for a premium, or, (as has been most generally the case,) have declared that they did not intend so to do, but their object was to disseminate the *Farmer* among their neighbors, believing that by thus doing, they were benefitting them and advancing the interests of all. The largest part of the clubs by far, of course, numbered from 5 to 20 names. Some of the largest received, however, were from friends who expressly declared that they declined any premium, though some might, by the addition of a few more names, have claimed to the highest offered by us.

Those of our friends, and the friends of progressive agriculture generally, who will continue to aid in the circulation of our journal, will receive our thanks; and, if in any neighborhood they can find suitable persons to canvass for subscribers, we will be still further indebted to them, and the most favorable terms will be awarded in

such cases. The terms for subscription are: \$1.50 for a single one, 5 copies for \$5, and 11 for \$10. Independent of these terms, liberal arrangements will be made with special agents.

We have no hesitation in appealing to the public for their assistance in extending our subscription list. The low price at which it is published, (in clubs,) will not pay the expense of printing and the blank paper—but the larger our list, the more extensive will be our advertising custom, upon which we calculate, as do most all publishers of papers, for our profits. We firmly believe, however, that every monthly number we issue, is intrinsically worth the price we charge for a year's subscription, to every intelligent man engaged in any way in the cultivation of the soil.

Bills.—Some of our subscribers who have not forwarded their subscriptions for this year, and a few who are also in arrears for the last volume, will find bills in the present No. Will they oblige us by attention to the same? We should be glad in forwarding the amount if each would endeavor to include some new subscriptions in their remittances.

DAVIS' PULVERIZING MILLS.—We have heretofore called attention to these mills, manufactured by Messrs. Denmead & Son, and which have proved very effective in their application to grinding bones, phosphates, &c., for fertilizers. For this purpose, it is claimed by their inventor, they are the most economical and perfect machines yet offered. Some bone dust recently shown us, pulverized by one of these mills, was one of the most even and handsome samples that we have ever seen. As the cost of manufacturing is reduced by their use to a low rate, and as their price is moderate, we suggest to farmers, situated where it is difficult to obtain bone dust, whether they could not profitably club together to purchase such a mill to grind the bones themselves.

POTASH ON POTATOES, &c.—*Scribner's Magazine* for March says:—"A series of experiments made by Professor Ville, in France, shows that the diseases that attack the potato, are in part the result of a deficiency in the supply of potash in the soil. For five years in succession the Professor planted potatoes in the same soil without any fertilizer; to other plots of ground he added fertilizers that did not contain potash. In all these cases the potatoes became diseased in the month of May, while on the other plots where potash was supplied in sufficient quantity, the plants were healthy and yielded an excellent product."

THE MARYLAND STATE AGRICULTURAL SOCIETY'S MEETING FOR APRIL will be a very important one, and will be largely attended, as all the Agricultural Societies and Clubs, as well as the Granges of the Patrons of Husbandry in the State, have been invited to send ten or more delegates for the purpose of conferring upon the general interests of agriculture, and especially relative to furthering the success of the next annual show of the society. It is hoped and expected that there will be a deputation from every association in the State on this occasion.

DEFERRED.—Several communications are crowded out this month, which will appear in our next issue, including one on geraniums, &c., from N. F. F.; notes on wheat from H. K., and others. *

The house of L. Tudor & Co. sell country produce of all kinds strictly *on commission*. They claim to merit, by promptness and honesty, a fair share of public patronage. Give them a trial.

We would direct attention of those who feel an interest in fish culture to the advertisement of Mr. A. Kent in this number.

Received.

From Scribner & Co., 654 Broadway, New York:—

SCRIBNER'S MONTHLY for March and April. In the March No., the fifth of Edward King's papers on "The Great South" is given, the author and artist having reached an undeveloped mine, the Mountain Region of Western North Carolina, and in the April issue Virginia is illustrated. These papers grow in interest, the engravings being of the highest merit and profusely given. The usual serials are continued, with short stories, some really good poetry, the Editorial departments, &c. Both Nos. are altogether excellent ones.

ST. NICHOLAS for April. We don't believe there ever was such a magazine for boys and girls as this one. Daintily printed, charmingly illustrated, full of wisdom and full of fun, sometimes serious and oftener gay, but never dull, it is enjoyed thoroughly by all, young and old, and no household with a child in it, of any age, but should subscribe for it.

BULLETIN OF THE BUSSEY INSTITUTION. This is a report of chemical analyses and other investigations at this institution, which is a school of agriculture and horticulture, largely endowed, and under the control of the authorities of Harvard College, and whose only want, it is said, is students to learn what the school is so well prepared to teach.

From D. H. Brown & Sons, New Brunswick, N. J., **CATALOGUES OF SEEDS, GREENHOUSE AND BEDDING PLANTS, FRUIT AND ORNAMENTAL TREES, &c.**

From John Saul, Washington, D. C., we have his **PLANT CATALOGUE** for 1874, comprising many novelties and a very large collection of rare and beautiful plants. It also contains a well-executed plate of a new Abutilon, with white flowers, which, less gaudy than many Chromos of the day, is far more delicate and handsome than most of them.

From James Vick, Rochester, N. Y., the April No. of his **FLORAL GUIDE** is promptly at hand. No lover of flowers can afford to do without Vick's publication. The price is only 25 cts. a year.

From Miller & Hayes, Germantown, Phila., Catalogue of **PLANTS AND ROSES**. Very tasteful and neat.

From J. M. Thorburn & Co., New York. Catalogue of **SEEDS**.

From F. K. Phoenix, Bloomington, Ill., Plant Catalogue and Price List.

From C. Platz & Son, Erfurt, Prussia. Seed Catalogue.

From Briggs & Bro., Rochester, N. Y., Jany. No. of their quarterly **FLORAL WORK**, an elaborate and highly ornamental volume, somewhat gaudy but handsome.

From Beach, Son & Co., Brooklyn, N. Y., **THE FLOWER GARDEN**. This is also a quarterly and contains a catalogue of the Seeds, &c., of the house named, and while less showy than the productions of the Rochester Seedsmen, gives a great amount of valuable horticultural information worth more than the \$1 subscription, which amount, however, is given back to each subscriber, in seeds or bulbs.

From E. W. Buswell, Esq., Cor. Secretary, TRANSACTIONS of the MASS. HORTICULTURAL SOCIETY, for 1873.

From Sheldon & Co., 677 Broadway, New York, **THE GALAXY** for April. The table of contents is varied, and good as usual. There is something for every taste. The editorial departments, including the Scientific Miscellany, Literature and Nebulae, are especially attractive.

From the Secretary we have received the **PROCEEDINGS OF THE GEORGIA STATE AGRICULTURAL SOCIETY**, comprising the proceedings of the Convention held at Columbus, the report of the Executive Committee, a statistical report of the Farming Interests of Ga.; an Analysis of the Cotton Plant, and analysis and money value of commercial fertilizers by Prof. White; a Report of the Experiments of Prof. Pendleton, a copy of which we have also received from the author, and an account of some of which was prepared for and crowded out of this issue.

From Thornburg & McGinnis, Circular of their Lime and Fertilizer Spreader, which was illustrated in our last. In addition to a description of the machine, with testimonials, &c., there is a paper by Capt. McGinnis on the soil as a medium for producing plants, with considerations on manures, and especially on lime. The writer has given much attention to this subject, but our limited space forbids our now making any extracts from it.

Baltimore Markets, March 25.*The quotations below are Wholesale Prices.*

Breadstuffs.—*Flour*.—Market quiet and steady.—Howard Street Super \$5.25@5.75; do. common to fair Extra \$6.0@6.25; do. good to ch. do. \$6.0@6.75; do. Family \$7.25@9.00. Ohio and Indiana Super \$5.00@5.50; do. common to fair Extra \$5.75@6.75; do. good to choice \$6.5@6.75; do. Family \$7.00@8.00; City Mills Super \$5.25@6.25; do. low to medium Extra \$6.75@7.50; do. Rio brando \$8.25@8.50. City fancy brand \$10.00. Rye Flour \$4.75@5.00. Fine Flour \$4.25@4.75. Corn Meal, City Mills, \$4.12@4.25. Western \$3.75@4.00.

Wheat.—Receipts light. Market quiet. We quote prime Amber 182 cents; do. white 150 cents; good red 172@175 cents.

Corn.—Demand good; prices firm. Southern White 78@82 cents; do. yellow 80@82 cents. Western mixed 83 cents.

Oats.—Receipts light. Bright Southern 65 cts; bright Western 63 cents.

Rye.—Dull at 83 cents for prime.

Cotton.—Market dull. We quote Middling 16 1/2 cts.; low Middling 15 1/2@15% cents; strict good ordinary 14 1/2@14% cents; good ordinary 14 1/2@14% cents; ordinary 14 1/2 cents.

Hay and Straw.—Dull. Clover \$15@17; mixed \$18@20. Timothy, good to choice, \$20@24. Rye Straw \$15. Oat Straw \$15@16 1/2 ton.

Milk Products.—City Mills Brownstuff 20 cents; middlings, 25 cents for light, 45 cents for heavy. W. bus. Western shipstuffs \$22 1/2 ton.

Molasses.—Muscovado \$4@35 cents; Porto Rico 35@50 cents; New Orleans 60@75 cents. V. gallon. Syrup.—Calvert \$4@56 cents; Chesapeake 45@48 cents; Canton Star House 27@28 cents, in bbls. and hds.

Onions.—Yellow \$5.00@5.50; red \$4.75@5.00 V. bbl.

Potatoes.—Early Rose \$4.0@4.25; Peerless \$3.75@4.00; Early Goodrich \$4.00; Monitors \$3.25@3.50; Peach Blows \$3.25@3.50.

Plaster.—\$1.75@1.80 V. bbl. of 30 lbs.

Provisions.—Market quiet. Bulk Shoulders 6 1/2 cents; clear-rib Sides 8 1/2 cents; Bacon, Shoulders 7 1/2 cents; Sides 9 1/2 cents. Hams 14@15 cents. Lard 10 cents. Mop Pork \$16.25 V. bbl.

Rice.—Carolina 8 1/2 cents. Rangoon 8 cents.

Salt.—Liverpool Fine \$2.10; Ground Alum \$1.15 V. sack. Turk's Island 30@33 cents. V. bus.

Seeds.—Firm, and in demand. Clover \$6.25@6.75; Timothy \$3.25@3.75; Orchard Grass \$2.50 V. bus.

Tobacco.—Maryland frosted \$4.00@5.00; sound common \$5.00@6.00; good do. \$6.00@6.50; good to fine red \$9.00@12.00; Virginia, common to good linge \$5.00@7.00; common to medium leaf \$7.00@8.00; fair to good do. \$9.00@10.00; selections, shipping \$11.00@14.00.

Whiskey.—96 cents.

Live Stock.—*Beef Cattle*.—Demand moderate.—Prices ranging from 3 1/2 to 7 1/2 cents for ordinary thin ones to best on sale.

Hogs.—Fair supply and equal to demand. We quote at 7 1/2@8 1/2 cents, nett.

Sheep.—Dull. Quotations at 4@6 cents, gross.

NEW ADVERTISEMENTS.

Lewis Tudor & Co.—Commission Merchant.

Alex. Kent.—Green Spring Fish Ponds.

J. Botigiano & Son.—Field and Garden Seeds.

Moro Phillips.—Super-Phosphate of Lime.

Dennmead & Son.—Steam Engines and Boilers.

J. J. Turner & Co..—To Tobacco Planters—Excelsior.

J. J. Turner & Co..—Ammoniated Super-Phosphate.

J. J. Turner & Co..—Bone Dust—Bone Flour.

Wm. & J. H. Leonhardt.—Wagon Builders.

Joshua Horner, Jr..—Bone Dust and Bone Meal.

Joshua Horner, Jr..—Super-Phosphate.

Geo. C. Hicks & Co..—Retorts, Tiles, Fire Bricks, &c.

A. G. Mott.—Implements, Seeds, Fertilizers, &c.

Gunter & Mallory.—Keystone Portable Forges.

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Farmer Office.—Lucerne Seed.

Contents of April No.

On Ripening of Peaches, by Col. Ed. Wilkins.123
 New Varieties of Fruit, by J. W. Kerr.125
 Planting Peach Trees, by L. W. G.126
 Packing Vegetables for Market.127
 Jerseys in a New Role.127
 Grape Vines—Wine Making.128
 Death of the \$40,000 Cow.129
 Lime and Clover as Fertilizers, by J. Atlee.129
 Tobacco Worms, by Dr. Chambers.130
 Paris Green for Cotton Worms.131
 Selection of Cotton Seed.132
 Emigrant Fields of North America.132
 Agriculture of France.133
 Maryland as a Farming State.134
 Advantages of Soiling, by Mr. Coffin.135
 Merino Sheep, by Gen. Goe.136, 138, 149
 Raising Silkworms, by A. Jackson.137
 Wire Fence, by R. C. Shoemaker.137
 Vandever Corn Planter.137
 The Dairy—"The Cow," by Mr. Hazard.138
 Agricultural Calendar for April.140
 Vegetable Garden, Work for April.141
 Queen Anne's (Md.) Agricultural Society.142
 Maryland State Agricultural Society, Proceedings of.142
 Report of Committee on Legislation, to.143
 Baltimore County Farmers' Union, Proceedings.144
 State Grange of Patrons for Maryland, Proceedings.145
 The Dog Question, by Mr. Bethune.145
 The Dog Question, by Mr. Holman.148
 Sheep Raising in Maryland, by Mr. Bliss.146
 Live Stock—Muirkirk Herd.146, 155
 Portraits of Bull and Heifer of Muirkirk Herd.147
 Mr. McHenry's Jerseys, Portraits of.148
 Sheep Husbandry, by Mr. H. C. Hallowell.149
 The Apiary, by D. M. Worthington.150
 Roses, for General Cultivation.150
 The Fireside—Farm Life.151
 Impure Milk—How to Get Along—Happy Every Day.153
 Domestic Recipes.153
 Farm Accounts, an Inquiry.154
 Agricultural Implements and Makers.154
 Maryland Horticultural Society.154
 Lawn and Flower Garden—April work.155
 Cultivation of Potatoes, by Mr. Ames, of Va.155
 Our Premium List, &c.156
 Davis' Pulverizing Mill for Bones.156
 Potash for Potatoes.156
 Meeting of Md. State Agr. Soc. for April.157
 Notices of Advert'mts, Deferred Articles, &c.157
 Magazines, Catalogues, Books, &c., received.157
 Baltimore Markets—New Advertisements.158

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 March 3d, 1874. }

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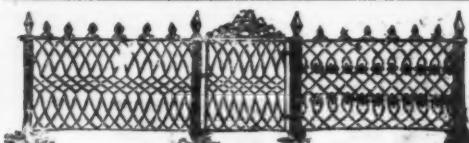
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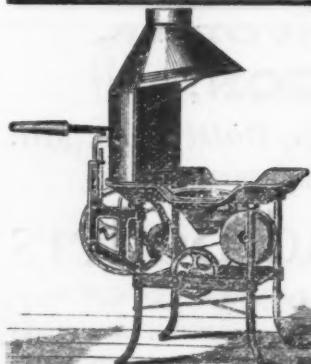
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UNION DEPOT, CHARLES STREET STATION,
And **PENNSYLVANIA AVENUE STATION.**

ED. S. YOUNG, D. M. BOYD, JR.,
Gen'l Passenger Ag't. Gen'l Passenger Ag't.
B. & P. and N. C. R. R'ds. Pennsylvania R. R.
SAMUEL T. DEFORD, JR.,
Southeastern Agent.

feb

THE AMERICAN FARMER.

J. W. KERR,
Denton, Caroline Co., Md.

offers for spring planting a general assortment of carefully grown NURSERY STOCK. A superior lot of APPLE TREES, varieties suited to the climate of Maryland; also, APRICOT, PLUM and QUINCE TREES. A large stock of HOUGHTON GOOSEBERRY, Conover's Colossal ASPARAGUS, Wilson's Albany STRAWBERRY PLANTS, strictly pure.

Also, SHADE TREES, EVERGREENS, FLOWERING SHRUBS, &c., &c.

Send for Spring Price-List.

All Stock sent from these Nurseries is in every respect as represented.

PRICES VERY LOW.

mar-2t TERMS CASH.

HALF MILLION OF STRAWBERRY PLANTS,

largely of Charles Downing, Wilson's Albany, Boyden's No 30, Russel, Nicancor, Kentucky Late, at \$1 per 100, \$6 per 1,000, \$35 per 10,000. MONARCH of the WEST, \$6 per 100. 20,000 GRAPEVINES; also, RASPBERRIES, BLACK-BERRIES, Currants, CONOVER'S COLOSSAL ASPARAGUS, at the lowest rates. Send for Price List.

CAMPBELL'S SIXTY DAYS SUGAR CORN, the earliest Corn in cultivation, 30 cents per pint by mail. Address,

JOHN COOK,

mar-2t Carroll P. O., Baltimore Co., Md.



My business is to supply what every farmer of experience is most anxious to get, perfectly reliable Vegetable and, Flower Seed. With this object in view, besides importing many varieties from reliable growers in France, England and Germany, I grow a hundred and fifty kinds of vegetable seed on my four seed farms, right under my own eye. Around all of these I throw the protection of the three warrants of my Catalogue. Of new vegetables I make a specialty, having been the first to introduce the Hubbard and Marblehead Squashes, the Marblehead Cabbages, and a score of others. My Catalogue containing numerous fine engravings, taken from photographs, sent free to all.

Jan-4t JAMES J. H. GREGORY, Marblehead, Mass.

M. PERINE & SONS,
Manufacturers of

Flower Pots, Stone and Earthenware,
POTTERIES AND SALES ROOM,

711 and 713 West Baltimore Street,
mar-ly BALTIMORE, MD.

VEGETABLE PLANTS.

	EARLY WAKEFIELD CABBAGE.	100	1,000
Fall sown.....	\$.75	4.00	
CELESTY PLANTS.			
In July—Boston and Sealey's Leviathan.....	.75	6.00	
TOMATO PLANTS.			
Canada Victor, in May.....	3.0		
Trophy, from selected seed	2.0	15.00	
Trophy, general crop from cold frames75	5.0	
Canada Victor and Trophy in pots (doz. \$1).	5.0		
Arlington and Richman's Early,	1.0	7.00	
LETTUCES.			
Boston Market and Simpson, (fall sown)....	.50	4.00	
Massy's Winter Head, (fall sown).....	1.50	10.00	
Hansen, (the original stock—origin'd here)	2.50		
EGG PLANTS.			
May 15th—grown in pots—(per doz., \$1.50). 5.00			
SWEET POTATO PLANTS.			
New South's Queen and Yell'w Nansemond.....	.30	2.50	
ASPARAGUS.			
Conover's Colossal—2 years—(extra fine)	1.00	6.00	
CABBAGE.			
Spring sown plants of Fottler's Brunswick, 1.00			
Spring sown plants of Wakefield and Early			
York	40	3.00	
Last of June and thereafter—Drum Head,			
Flat Dutch, Bergen, Drumhead Savoy			
and Winningstadt.....	30	2.50	

We invite correspondence with those who wish to plant largely, as our prices in many things will be much reduced by the 10,000. The above are prices by express. For \$1.00 per 100 additional we will mail the plants free of postage. As to the remarkably superior character of our Asparagus roots, we refer to Col. Edward Wilkins and R. S. Emory, Esq., of this place, who have planted them largely. Send for our Price-List of Plants for the Garden and Parlor.

MASSEY & HUDSON,

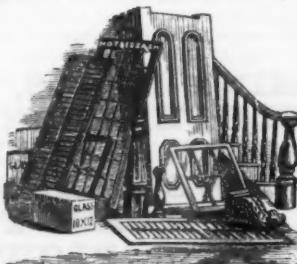
mar-3t Chestertown, Kent County, Md.

Eggs. Pure Bred Prize Poultry. Fowls.

BLACK HAMBURGS. **HOUDANS.** **BROWN LEGHORNS.**
These three breeds will lay more eggs and the chickens are easier raised and mature earlier than any other breeds known. Dark Brahmans, noted "Lady Wydyr's" stock. Light Brahma, "J. K. Felch's" celebrated pedigree stock. Eggs two dollars per setting, packed with care in boxes or baskets in cut hay, and in rotation as orders received. A few Dark Brahmans and Houdans for sale, \$10 per trio.

JOHN D. OAKFORD,
88 North Street, Baltimore.

Jno. W. Wilson & Sons,



AND MANUFACTURERS OF

Sashes, Doors, Blinds, Mouldings, Brackets, Handrails, Newels, Balusters, and other Building Materials—on hand at reduced prices.

333 SOUTH EUTAW STREET,
Corner Cross st. [sep-t'y] BALTIMORE, MD.

LUMBER DEALERS

THE AMERICAN FARMER.

Taylor's Rotary Engine,

(PATENTED MARCH 25, 1873.)

This Engine is adapted to any place where power is needed. For hoisting purposes, vessels, boats, &c. Some of its advantages are: First—Simplicity. Second—The *small* space it occupies, one of twelve-horse power occupying only two feet square space. Third—It reverses INSTANTLY, turning either way at will of operator. Fourth—It has no dead center. Fifth—It requires less steam, consequently less boiler room for same amount of horse-power.

The Excelsior Portable and Agricultural Engine.

Heater inside boiler, (no freezing of pipes,) cylinder incased with steam, consequently using *dry* steam instead of wet steam. Has more good points than any Portable or Agricultural Engine in the market. STATIONARY ENGINES of most approved styles. Return Tubular Boilers, all sizes.

VERTICAL ENGINES AND BOILERS,

3, 5 and 7 Horse Power—simple, durable and cheap.

CIRCULAR SAW MILLS,

SINGLE AND DOUBLE.

Adapted to *any mill site*. Built out of the *best material*. Strong, durable and easily operated. SOLD ON EASY TERMS.

DIAMOND STATE SEPARATORS.

We claim *simplicity, durability and capacity to do good work* in all kinds of grain, and with *any kind of power*, from two or three-horse tread, six or eight-horse sweep power, or a four or six-horse engine. First—Its separating the straw from the grain is perfect. It has no rakes or beaters. Second—Its riddles, which are *entirely different* from any machine in the market, make its cleaning of grain entirely free from straw, &c., and fit for market. Third—It has a feeder's duster which protects the feeder from the dust. Fourth—It is the simplest machine built; has only two belts, is easily handled and runs lighter than any machine doing the same amount of work.

Westminster Triple-Geared Power:

Simple and compact, runs light, has a quick motion, mounted on wheels or down.

IMPROVED HARMAN HORSE-RAKE

Is easily operated by a boy; does not dig and scratch the soil, and in grass or grain has no superior. Runs light and is built in the best manner. We solicit a trial.

Lime and Fertilizer Spreader

Will spread LIME, PLASTER, ASHES, FERTILIZERS AND FINE MANURES, and drill in rows if desired. Will spread from 5 to 100 bus. Lime per acre, as desired. It is built in the best manner, and will spread as much in a day with a boy and a pair of horses as fifteen men by hand; while it has no equal in the evenness of its spreading. Every machine warranted. We have the most flattering testimonials of its utility.

HOMINY MILLS,

SELF-SHARPENING GRIST MILLS,

CORN CRUSHERS,

WOOD AND TABLE SAWS,

FORCE PUMPS,

PLOWS OF ALL SIZES,

MILL MACHINERY, &c., &c.

SEND FOR CIRCULARS. AGENTS WANTED.

Address

Taylor Manufacturing Co.

Jas-1y

Westminster, Md.

THE AMERICAN FARMER.

THE
Old Established Depot for Standard
FERTILIZERS.



EXCELLENZA
SOLUBLE PHOSPHATE

Unsurpassed for all Spring Crops.

Price \$50 per Ton in Baltimore.

EXCELLENZA
TOBACCO FERTILIZER,

The BEST of all Tobacco Fertilizers.

Price 860 per Ton in Baltimore.

We sell also other standard brands of SUPER-PHOSPHATE as well as BONE DUST.

GEO. DUGDALE & CO.
44 Post Office Avenue, Baltimore.

feb-8t

PACIFIC GUANO COMPANY'S
SOLUBLE PACIFIC GUANO.

JOHN S. REESE & CO.

No. 10 South Street, Baltimore, Md.

General Agents.

CAPITAL.....\$1,000,000.

The use of this Guano since its introduction in 1884, and the annual increase of its consumption from a few hundred tons the first year of its use, to many thousands of tons, is the best attestation to its value as an efficient agent for the increase of the products of agricultural labor, as well as to the integrity of its production.

The large capital invested by this Company in this business, and its unusual facilities, enables it to furnish a fertilizer of the *highest excellence* at the *lowest cost* to consumers.

It is the policy of the Company to furnish the best fertilizer at the lowest price, and look to large sales and small profit for reasonable returns on Capital employed.

This Guano is sold by Agents of the Company in all the markets of the Middle, Southern and Gulf States.

Price in Baltimore \$50 per ton 2,000 lbs.

feb 8t

JOHN S. REESE & CO.

THE AMERICAN FARMER.

THOMAS W. LEVERING & SONS.

55 COMMERCE STREET, BALTIMORE, MD.

Commission Merchants & Dealers in Seeds

HAVE ON HAND

Clover, Sapling or English Clover, Timothy, Orchard
and Herds Grass, and other Field Seeds.

AND AGENTS FOR

The Celebrated Hudson Prolific Corn.

[Feb. 3]

“THE CARROLLTON.”



This new and beautiful Hotel, located upon the site of “Old Fountain Hotel,” extended by an elegant front on Baltimore street, is convenient alike to the business man and the tourist.

It is the only Hotel in Baltimore of the new style, embracing

ELEVATORS, SUITS OF ROOMS, with BATHS,

And all conveniences; perfect ventilation and light throughout, and was planned and built as a Hotel, new from its foundation.

Its elegant and convenient Office and Exchange Room, with Telegraph, &c., will at all times be at the disposal of the merchants and citizens of the city.

The location of the Ladies’ Entrance on Baltimore street, and the beautiful Drawing Rooms connected therewith, will give to families more than the usual degree of quietude and seclusion.

The undersigned refers to his career of over thirty years as a Hotel Manager in New York and Baltimore, and feels confident, that with a new and modern house, he can give entire satisfaction to his guests.

To accommodate Merchants and others who visit Baltimore, the proprietor will charge \$3 per day for the rooms on fourth and fifth floors, making the difference on account of the elevation. Ordinary transient rates for lower floors, \$4 per day.

R. B. COLEMAN, Proprietor.

BALTIMORE, Md.

[Nov-ly]

THE AMERICAN FARMER.

R. J. BAKER & CO.

DEALERS IN



MANUFACTURERS AND
IMPORTERS OF
Pure Ground Bone
AND
CHEMICALS
FOR
FERTILIZERS.
36 & 38
South Charles St.
BALTIMORE, MD.

DYE-WOODS

DYE-STUFFS,

OIL VITRIOL,

Glue, Indigo, Madder, Bi-Carbonate of Soda, &c.

Nos. 36 and 38 South Charles Street,

BALTIMORE, MD.

jan-ly

WILSON & CO.,
63 SECOND STREET, BALTIMORE,
MANUFACTURERS OF
FIRE AND WATER PROOF
IMPROVED PLASTIC SLATE ROOFING
AND DEALERS IN
ENGLISH ROOFING FELT.

The PLASTIC SLATE IMPROVED, as a roofing material, stands unrivalled. As a mastic it adapts itself to every SHAPE and SLOPE, NON-COMBUSTIBLE, IMPERVIOUS, NON-EXPANSIVE and UNDECAYING. FROST does not CRACK nor HEAT DISSOLVE it, possessing all the advantages of a sheet slate roof without its joints and crevices. Perfectly FIRE PROOF, and insures at same rates as slate or metal roofs. It is unequalled as a coating for RAILROAD and FARM BUILDINGS.

LEAKY SHINGLE ROOFS.

It frequently happens that house owners wish to avoid the expense of taking off shingles and running the risk of uncovering the house. To accomplish this we recommend the use of the ENGLISH ROOFING FELT, which by far supercedes the common tarred paper. It has been proved by experience that roofs covered in this manner will stand for YEARS in places where other roofing materials have FAILED.

OLD METAL ROOFS can be covered with this material, making them to last many years, and more durable than several successive coats of paint, at half cost of a new roof.

FOR DAMP WALLS, as a remedy, it is unequalled and an entire success.

Orders for shipping promptly attended to.

WILSON & CO.,
No. 3 Rialto Building.
63 SECOND STREET, BALTIMORE.

THE AMERICAN FARMER.

SOLUBLE SEA ISLAND GUANO.

LONG GREEN, Baltimore Co., Md., November 18, 1872.

R. W. L. RASIN & Co.

Gentlemen:—I am pleased to bear testimony to the satisfactory results obtained from the Soluble Sea Island Guano purchased of you last spring. I have used it on corn, potatoes and vegetables with entire satisfaction. On part of my potatoes I used Peruvian Guano and Bone in much larger quantity than Sea Island Guano, but in the growth and yield the difference was very marked in favor of the Sea Island. I do most confidently recommend the use of it to the farming community, and should the standard be maintained I feel confident you will soon find ready sale for it in large quantities. Very respectfully, your friend, &c.,

SAMUEL M. RANKIN.

The Best Guano on the Market. Ahead of Best Peruvian.

NEWSOM'S DEPOT, Southampton Co., December 6, 1873.

Gentlemen:—I hereby certify that the Soluble Sea Island Guano is the best Guano in the market for cotton, corn, potatoes and melons, and is far ahead of the best Peruvian Guano. Will want three tons next year. Yours truly,

DR. J. H. GRIFFIN.

My Neighbors will bear Testimony with me.

BOYKIN'S DEPOT, Va., October 4, 1873.

Gentlemen:—Yours in reference to the Sea Island Guano I purchased of you last spring is received and noticed. I regard it as a No. 1 fertilizer, and my neighbors bear will testimony with me. I applied it under cotton, corn and sweet potatoes, at the rate of 200 lbs. to the acre, and am perfectly satisfied with the effect and result. I have had no rust, and the bolls continue in good state.

Yours truly, E. B. BEATON.

P. S.—If to be had, I expect to use the Sea Island next year.—E. B. B.

"I prefer it to any I have ever used."

November 20, 1873.

MR. BOOKER:—Your letter is just to hand. I reply I can say I am highly pleased with the Sea Island Guano. I prefer it to any I have ever used, pound for pound. I used it at the ratio of two hundred (200) pounds to the acre. I will make some 1,500 pounds to the acre of tobacco. The crop doesn't seem to suffer from drought. It ripens yellow and forward on this land. I followed with wheat. It is looking fine.

Respectfully,

A. H. OWEN.

PURE OHIO GROUND BONES

at market prices, and

GERMAN POTASH SALTS

of our own importation, in quantities to suit purchasers.

R. W. L. RASIN & CO.,

No. 32 South Street,

BALTIMORE.

THE AMERICAN FARMER.

CANFIELD, BRO. & CO.
WATCHES,
DIAMONDS AND RICH JEWELRY,
SILVER AND PLATED WARE,
American, English and Swiss Watches,
GOLD, JET, TORTOISE SHELL, CORAL AND VULCANITE
JEWELRY,
CLOCKS AND BRONZES, LEATHER GOODS,
Fans, Opera Glasses and Fancy Goods.

THE LARGEST HOUSE IN THE CITY.

PREMIUMS FOR AGRICULTURAL FAIRS FURNISHED.

BADGES AND MEDALS FOR COLLEGES AND SCHOOLS A SPECIALTY.

WATCHES CAREFULLY REPAIRED.

CANFIELD, BRO. & CO.,

Corner Baltimore and Charles Streets, Baltimore, Md.

July-1y

V. O. EARECKSON,
LUMBER DEALER,
West Falls Avenue, first Yard South of Pratt St. Bridge.
Building Lumber, Shingles, Laths, Palings,
FENCING, &c.
LIME, BRICKS, SASH, DOORS AND MILL WORK
my-1y AT THE LOWEST PRICES.

IMPORTANT!
PORTABLE GAS! PORTABLE GAS!

KUSTER'S NON-EXPLOSIVE GASLIGHT FLUID!

Cheapest, Safest and best Light in the World, giving a light equal to Coal Gas at the cost of one-half cent per hour! The Lighting of CHURCHES, HALLS and STORES a SPECIALTY. The **Petroleum Fluid Stove** is found superior in the satisfactory and rapid manner in which it does its work—always ready and under momentary control. For broiling Steak, Fish or Game it is unsurpassed. For Baking of Bread, Cakes and Pies, no oven with any other fuel in the world equals it. Call and see for yourselves.

C. F. KUSTER, Successor to F. G. PALMER, and
my-12t late U. S. Portable Gaslight Co.,
No. 9. South Gay Street, Baltimore, Maryland.

GERMAN POTASH SALTS.

Imported directly from the mines, of best quality, and put up in extra strong linen bags. They contain the essential properties of

WOOD ASHES, AND NO SAND OR DIRT,

are valuable for all crops, and for Grass; especially adapted for Potatoes, Tobacco, Fruit Trees, and Grapes. The KAINIT imported by me is calcined and ground, and contains 30 to 32 per cent. Sulphate Potash, and the MURIATE POTASH is 80 per cent strength. They are CHEAPER than any other Fertilizers.

For sale at lowest prices for Cash by

feb-3t CHAS. L. OUDESLUY'S, 67 Exchange Place, Baltimore.

IMPORTANT TO FARMERS.

WHANN'S

RAW BONE SUPER-PHOSPHATE.

THE GREAT FERTILIZER

On COTTON, CORN, TOBACCO, WHEAT, RYE, and on all the staple crops of the country. It has produced unexampled results. In competition with other Fertilizers it has excelled them all, and achieved for itself a reputation of being one of the most reliable manures in the market.

Whann's Raw Bone Super-Phosphate

Is not a mere temporary stimulant, but an active and lasting manure, showing its beneficial effects throughout several seasons. Farmers who have been disappointed in the use of other Fertilizers are invited to give WHANN'S a trial alongside of any manure in the market. Whann's Raw Bone Super-Phosphate is manufactured only by Walton, Whann & Co., Wilmington, Del. For sale at their stores,
No. 16 Bowly's Wharf, Baltimore, Md.

No. 203 West Front Street, Wilmington, Del.

No. 28 South Wharves, Philadelphia, Pa.

feb-3t And For Sale by Local Dealers throughout the country.

JOB PRINTING.

We have arrangements by which all kinds of Job Printing can be executed with promptness, accuracy and neatness. Persons in the country needing

Cards, Circulars, Pamphlets, Constitutions of Societies,
CATALOGUES, PREMIUM LISTS, HANDBILLS,

Or any other kind of Printing, in all colors, can have the same executed through this office in the handsomest style, and at the very lowest prices. Orders by mail promptly attended to.

TERMS CASH. Address

AMERICAN FARMER OFFICE, 9 North St., Balt.

THE AMERICAN FARMER.

IMPORTANT TO FARMERS, DAIRYMEN and COUNTRY MERCHANTS!

FLETCHER E. MARINE,
GENERAL COMMISSION MERCHANT,

ESTABLISHED 1855,

No. 45 West Pratt Street, Baltimore, Md.

Dealer in Flour, Meal, Grain and Feed, Hay and Straw, Dried Fruit, Butter and Cheese, Guano and other Fertilizers; also Lumber, Staves and Tan Bark.

Consignments of produce, &c., respectfully solicited. Our charges are only the customary commission and the legitimate expenses of transportation and handling in the city.

20,000 bushels of ASHES on hand.

FLETCHER E. MARINE,

No. 45 W. Pratt Street, Baltimore, Md.

oct-1y

ORCHILLA GUANO, AA,
A TRUE BIRD GUANO,

Rich in Phosphates and Alkaline Salts,

From Orchilla Island in the Caribbean Sea, belonging to Venezuela, Lat. 11° 50' N., Lon. 66° 14' W.

Packed in GOOD BAGS, 167 lbs. each, 12 to the Ton,
\$30 per Ton, Cash.

B. M. RHODES & CO., Agents for the Sale of Orchilla Guano,
Office, 82 SOUTH STREET, below Corn Exchange,

july-1y

BALTIMORE.

IMPORTANT IMPROVEMENT IN FERTILIZERS.

GERMAN POTASH SALTS,

Imported directly from the mines, high and low tests.

Orders of Manufacturers promptly executed in deliveries to suit.

STOCK ON HAND FOR SALE VERY CHEAP.

Muriate of Potash, Kainit, &c.

Also for sale, GROUND BONE, guaranteed strictly pure, testing 4.112 Ammonia, 47 010 Bone Phosphate of Lime, GUANO, &c. PLEASE CALL FOR CIRCULARS.

TATE, MÜLLER & CO.

oct-1y

52 S. Gay St., Baltimore, Md.

D. KNOX, late of R. Sinclair & Co.

WILLIAM DICKSON.

D. KNOX & CO.

DEALERS IN

AGRICULTURAL IMPLEMENTS AND MACHINERY.

GROWERS AND IMPORTERS OF

Garden, Field and Flower SEEDS, Trees, Plants, Fertilizers, &c.

Agents for DOTY'S WASHING MACHINES, CUCUMBER PUMPS, MONTGOMERY'S WHEAT FAN,
"SUPÉRIOR" MOWER AND REAPER.

No. 2 Howell's Block,

oct-12t CAMDEN STREET, NEAR SHARP, BALTIMORE, MD

THE AMERICAN FARMER.

MANUFACTURERS OF PURE
No. 1 GROUND PLASTER.

C. S. & E. B. FREY,

NO. 18 HARFORD AVENUE, BALTIMORE, MD.
And dealers in Corn Husks. Always buying and pay the
HIGHEST CASH PRICE

FOR CORN HUSKS. feb 12th

**THORNBURG & M'GINNIS'
LIME AND FERTILIZER SPREADER,**

PATENTED 1872.

This machine spreads chip manures, fine barn-yard manures, and broadcasts lime, plaster, ashes and super-phosphates; and also drills the same in rows any desired distance apart, taking two rows at a time, at rates of any quantity per acre down as low as one bushel. It also broadcasts small grains with fertilizers on lands too rough for the drill.

THORNBURG & M'GINNIS,

aug-ly

Willow Grove Springs, Woodstock, Va.

**EAST CHESTER NURSERIES.
FRUIT TREES,**

**ORNAMENTAL TREES,
BEDDING PLANTS, &c.**

Grape Vines, Raspberries, Strawberries and
other Small Fruits.

HARDY HERBACEOUS PLANTS.

SEND FOR PRICE LIST.

J. W. COBURN & CO.
East Chester, N. Y.

mar-11

**S. E. TURNER & CO.
STATIONERS AND BLANK BOOK
MANUFACTURERS.**

Dealers in WRITING, PRINTING AND WRAPPING
PAPERS, ENVELOPES, TWINES, BAGS, &c., &c.

No. 3 S. Charles Street,
BALTIMORE, MD.

july-1

WM. STUART SYMINGTON.

PATAPS CO CHEMICAL WORKS.

SYMINGTON BROS. & CO.

MANUFACTURERS OF

OIL VITRIOL
AND OTHER CHEMICALS.

Works on Locust Point, { Baltimore.
Office, 44 South Street,

\$1.000

REWARD

For any case of Blind, Bleeding, Itching or Ulcerated Piles, that DEBING'S PILE REMEDY fails to cure. Prepared expressly to cure Piles and nothing else. Sold by all Druggists. Price \$1.

**FOUTZ'S
CELEBRATED**

Horse and Cattle Powders.



This preparation, long and favorably known, will thoroughly re-invigorate broken down and low-spirited horses, by strengthening and cleansing the stomach and intestines.

It is a sure preventive of all diseases incident to this animal, such as LUNG FEVER, GLANDERS, YELLOW WATER, HEAVES, COUGHE, DISTEMPER, FEVERS, FOUNDER, LOSS OF APPETITE AND VITAL ENERGY, &c. Its use improves the wind, increases the appetite, gives a smooth and glossy skin—and transforms the miserable skeleton into a fine-looking and spirited horse.



To keepers of Cows this preparation is invaluable. It is a sure preventive against Rinderpest, Hollow Horn, etc. It has been proven by actual experiment to increase the quantity of milk and cream twenty per cent, and make the butter firm and sweet. In fattening cattle, it gives them an appetite, loosens their hide, and makes them thrive much faster.



In all diseases of Swine, such as Coughs, Ulcers in the Lungs, Liver, &c., this article acts as a specific. By putting from one-half a paper to a paper in a barrel of swill above the diseases will be eradicated or entirely prevented. If given in time, a certain preventive and cure for the Hog Cholera.

**DAVID E. FOUTZ, Proprietor,
BALTIMORE. Md.**

For sale by Druggists and Storekeepers throughout the United States, Canadas and South America.

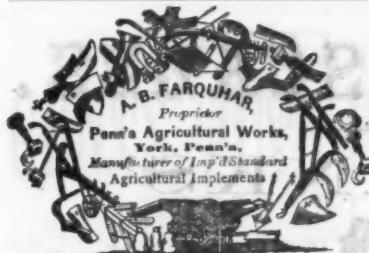
FINE YOUNG BULLS FOR SALE.

We expect to have for sale in the spring a remarkably fine young AYRSHIRE BULL.
Also some fine young JERSEY BULLS.

Address

EDITORS AMERICAN FARMER.

THOS. A. SYMINGTON.



PENNSYLVANIA
Agricultural Works,
YORK, Pa.

A. B. FARQUHAR,
MANAGER AND PROPRIETOR.

The Pennsylvania Agricultural Works is one of the most extensive establishments of its kind in the United States. It is furnished with improved Machinery, Foundry, Forging Rooms, Planing and Sawing Mills, Lumber Yard, &c., complete within itself. It is situated among the great Iron, Coal and Lumber fields, which form the basis of all manufacturing; and I would respectfully call the attention of the public to these advantages, confident of meritng an extended patronage.

The following are among the specialties:

**AGRICULTURAL STEELS, PLOWS, CULTIVATORS, HORSE RAKES, PLOW HANDLES, THRESHING MACHINES,
HORSE POWERS, &c.**

HORSE POWERS.

The Horse Power is one of the most important implements, and probably the most difficult to keep in order; too much care, therefore, cannot be used in selecting the very best.

I have long made the manufacture of Horse Powers a specialty, and can safely recommend my improved Iron Geared Powers to be all that I claim for them.

FARQUHAR'S CLIMAX HORSE POWER,

For Threshing, Ginning and General Farm Use,

ranks first; being the result of many years' labor, "practice with science," and the expenditure of thousands of dollars in experimenting.

It is remarkable for its light draft, simplicity, great strength and durability. It is fitted up with as much care as a piece of cotton machinery or steam engine, and will last as long. The rule, the "best is the cheapest," applies with special force to Horse Powers.

THE PELTON OR TRIPLE-GEARED IRON POWER.

This well known power is noted for its strength, cheapness and general efficiency. Like the Climax, the gearing is all secured in an iron frame, and is uninjured by the weather. The pinions are made of chilled iron, and no pains are spared to make it a first-class, cheap power.



Improved Railway Horse Powers, Threshers and Separators,

Have been a specialty with me for many years, and those who favor me with their orders may rely upon getting a machine which will run as light, waste less grain, and give more general satisfaction than any offered.

PLOW HANDLES.

Having improved Blanchard machinery for the manufacture of Plow Handles upon an extensive scale, I can supply first quality Handles, side bent to order for any pattern of plow.

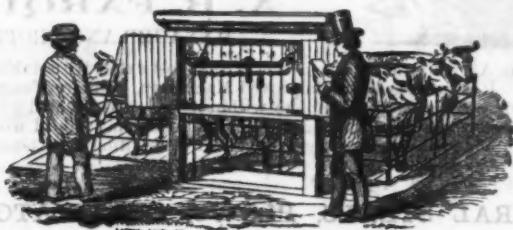
For further particulars, address

A. B. FARQUHAR, York, Pa.

THE AMERICAN FARMER.

STANDARD SCALES.

FAIRBANKS'



Hay, Stock and Cattle Scales.

CAUTION!

The well-earned reputation of our SCALES has induced the makers of imperfect Balances to offer them as "Fairbanks' Scales," and purchasers have thereby, in many instances, been subject to fraud and imposition. If such makers were capable of constructing good Scales they would have no occasion to borrow our name.

Buy only the Genuine Fairbanks' Standard Scales.
STOCK SCALES, COAL SCALES, HAY SCALES, DAIRY SCALES, PLATFORM SCALES,
COUNTER SCALES, &c.

FOR SALE ALSO, ALARM CASH DRAWER.

Till-Tapping Prevented!

Every Drawer WARRANTED!

EVERY MERCHANT
SHOULD USE THEM.

Sold at all Fairbanks' Scale Warehouses.

FAIRBANKS & CO.,

sep-ly No. 166 W. Baltimore Street, Baltimore, Md.



THE AMERICAN FARMER.

STRATTON'S GENTS' FINE FURNISHING GOODS. DRESS SHIRTS A SPECIALTY.

No. 161 WEST BALTIMORE STREET,
Four doors above the old stand and two doors below Noah Walker & Co.'s,
oct-ly BALTIMORE, MD.

JOHN C. HACHTEL & CO.,

MANUFACTURERS OF

HACHTEL'S AMMONIATED SUPERPHOSPHATE, PURE DISSOLVED BONE, and TOBACCO FERTILIZER.

These brands are prepared from the best materials which can be obtained, and contain in a soluble condition every element necessary to the growth of the plant and the formation of the grain. Rich in Ammonia, Soluble Phosphates and Potash—always in fine dry condition for the drill. Orders respectfully solicited. We also deal in KAINIT, (Potash Salts,) which we recommend as a top-dresser for all crops, in addition to Phosphates or Bone.

dec-ly OFFICE—27 South street, Baltimore, Md.

JAMES L. FREY,

GEORGE E. BOWERS.

JAMES L. FREY & CO.

MANUFACTURERS OF

Spring, Hair, Husk and Cotton MATTRESSES, Feather Beds, Pillows, Bolsters, &c. No. 84 W. BALTIMORE STREET,

Between Gay and Holliday Streets,

Baltimore, Md.

FACTORY—S. E. CORNER CHEW AND CAROLINE STREETS.

Old Feather Beds Steamed. Steamboats, Hotels, &c., furnished at the Lowest Prices.

dec-ly

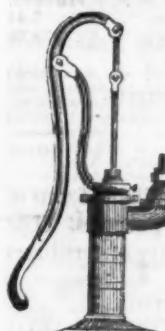
HUBBALL & DUNNETT, HYDRAULIC ENGINEERS, 6 & 8 N. Liberty St., and 171 N. Eutaw St., Baltimore.

Public and Private Buildings Heated by Steam or Hot Water: Plumbing of every description, with Lead, Galvanized or Plain Iron Pipe: hot and cold water: Hydraulic Machines, various patterns, simple in construction and durable, viz: Steam Pumps, positive action: Hot Water Pumps, Acid Pumps, Double Action Pumps, Brass and Iron: Water-Wheel Pumps, Water Rams, Wind Mill Pumps, Horse-Power Pumps, Steamboat Pumps for extinguishing fire: Springfield Gas Machines for lighting Country Houses, Hotels, Factories and Railroad Stations, &c., &c.

Having experienced workmen in our employ, any work entrusted to our care will be promptly and satisfactorily done.

We have the privilege to refer to the following gentlemen as to our capability to do the above work: Hon. Reverdy Johnson, Hon. Henry G. Davis, Hon. Wm. Pinkney Whyte, Francis T. King, Esq., J. H. B. Latrobe, Esq., Samuel G. Wyman, Esq., William G. Harrison, Esq., William W. Taylor, Esq., John Gregg, Esq., Wm. F. Burns, Esq., J. W. Allnutt, Esq., Messrs. Baldwin & Price, Architects.

dec-ly



THE AMERICAN FARMER.

ESTABLISHED 1839.

TO FARMERS, PLANTERS and GARDENERS

PureGroundBone

MANUFACTURED BY

JOHN BULLOCK & SON,

Factory: Washington Road, Baltimore, Md.

Store: No. 61 S. Gay Street, Baltimore, Md.
P. O. Box 636.

PACKED IN BARRELS OR BAGS, \$45 PER TON.

For the past thirty years we have been engaged in the manufacture of PURE GROUND BONE, our crude stock being gathered daily from the Butchers here, with whom we have yearly contracts. Having recently added additional and improved machinery, we are now prepared to fill all orders in our line with promptness and despatch. Would respectfully call attention to the annexed certificate:

BALTIMORE, March 1st, 1873.

Messrs. JOHN BULLOCK & SON, Baltimore, Md.

Gents—The following is the result of an analysis of your Ground Bone:

	PER CENT.
Moisture determined at 212° Fahrenheit,	5.44
Organic Matter,	39.16
Containing Nitrogen, 4.47 per cent., equal to Ammonia, 5.42 per cent.	
Inorganic Matter,	55.40
Containing Phosphoric Acid, 22.15 per cent., equal to Bone Phos. of Lime, 48.35 percent.	
Alumina, Oxide of Iron, and Carbonate and Fluoride of Lime not determined.	
Insoluble Residue, 3.61 per cent.	
	100.00

I am pleased to state that this is one of the richest and most available forms of Phosphate of Lime and Ammonia that can be found for agricultural purposes. The per centage of valuable ingredients named is in excess of the generality of fertilizers now being offered for sale. Respectfully, &c.,

P. B. WILSON,

oct-1y

Analytical and Consulting Chemist.

THE AMERICAN FARMER.

THE NEW CLIFTON FRUIT CRATE AND VEGETABLE CRATE,

THE BEST THING KNOWN FOR TRANSPORTING FRUITS AND VEGETABLES.

Will supersede all other articles used for these purposes.

Awarded First Premium and Diploma at Md. State Fair, 1873.

First Premium and Diploma at Frederick Fair, 1873.

First Premium and Medal at Va. State Fair, 1873.

First Premium and Medal at Maryland Institute, 1873.

The Crates, and also State, County, Farm and Individual Rights, for Sale by

TENCH TILGHMAN, 9 North St., Baltimore.

feb-8t

**BURNS & SLOAN,
No. 132 Light Street Wharf,
BALTIMORE, MD.**

**BUILDING LUMBER AND SHINGLES,
ASH, OAK AND WALNUT.**

Lime, Bricks, Sash and Mill Work.

oct-12t

PAINT! PAINT! PAINT!
**THE
AVERILL CHEMICAL PAINT!**

Which for DURABILITY, BEAUTY and ECONOMY, is unsurpassed by any other PAINT MANUFACTURED, and is already mixed for use, of all the different shades of color to suit the taste, and is equally good for wood, stone or iron, and will not crack nor chalk off by friction, and will preserve its color twice as long as the best Lead Paint. It is sold only by the gallon, and one gallon will cover twenty square yards of smooth surface two coats.

Send for Circulars and sample cards.

**R. & W. H. CATHCART, Sole Agents,
113 Thames street, Baltimore.**

jan-ly

**DANA BICKFORD'S
NEW IMPROVED
FAMILY KNITTING MACHINE**

Perfection in work and simplicity of construction have been attained in this Machine. It knits both circular and flat web with perfect selvage edge, making a perfect hand-stitch. It narrows and widens, knitting heels and toes of stockings to perfection, with ribbed or plain stitch, and is a Crocheting as well as Knitting Machine. It makes all the intricate fancy stitches of the crocheting-needle better than hand-work. It is so simple that a child can operate it, and the rapidity of its work is truly wonderful—30,000 stitches per minute.

This Machine has carried the FIRST PRIZE at the Maryland State Fair, Maryland Institute and Virginia State Fair this Fall, and was the principal attraction at all of them. They are more valuable in the Family than the Sewing Machine. Price \$25 and \$35. Send for Circulars. Agents wanted in every part of Maryland. Liberal terms. Address,

J. A. HAMILTON, General Agent for Maryland.
may-1f 47 NORTH CHARLES STREET, Baltimore.

**THE CHAMPION
EARTH CLOSET.**

Having selected the new CHAMPION as being the very best and cheapest EARTH CLOSET made, and accepted the Agency of it, I am now ready to furnish the public with five styles.

No farmer or person living in villages can afford to be without the Earth Closet. Looked at in the light of convenience, comfort and economy, it is far beyond the water closet, having all the advantages of the city water closet and none of its disadvantages, being perfectly without odor.

Send for Price-List and Circ'lar to

**J. A. HAMILTON,
47 N. Charles Street,
Baltimore.**

may-1f

THE AMERICAN FARMER.

JOHN D. HAMMOND.

HENRY A. ANTHONY.

JOHN D. HAMMOND & CO.

Saddle, Harness, Trunk and Collar
Manufacturers,

WHOLESALE AND RETAIL.

No. 361 W. Baltimore Street, opposite "Eutaw House,"
BALTIMORE.

sep-ly

A. E. WARNER,

Manufacturer of

Silver Ware, Rich Jewelry,
Watches, Diamonds, Jewelry, Silver Ware.

Importer and Dealer in

Diamonds, Fine Watches, Silver Plated Ware, Table Cutlery,
Fancy Articles, &c.

No. 135 W. BALTIMORE STREET, BALTIMORE, MD.

FINE BRONZES AND OPERA GLASSES. SOLID SILVER WARE OF OUR
je-ly OWN MANUFACTURE.

HARRINGTON & MILLS,

Nos. 204 & 206 BALTIMORE STREET, BALTIMORE, MD.

Manufacturers and Importers of

Fine Furniture, Looking Glasses, Gilt Frames, Curtains and Draperies.

We call particular notice to our large stock of **CANE FURNITURE**, embracing
Chairs, Tables, Lounges, &c., &c.; being particularly suitable for country residences, and adapted,
from its lightness and coolness, for Southern latitudes.

A large stock of Fine Furniture constantly on hand and made to order.

may—ly.

MARYLAND BRITANNIA
AND
GOLD AND SILVER PLATE WORKS.

ESTABLISHED 1850.

WM. HOLMES,
SALES ROOM..... No. 3 NORTH CHARLES STREET.

Office and Factory, Nos. 50 and 52 Holliday Street,
BALTIMORE, MD.

Repairing and Replating done as soto look equal to new ware. may—ly.

THE AMERICAN FARMER.

IMPORTANT TO FARMERS.

J. G. HEWES'

Ammoniated Bone Super-Phosphate of Lime,

Manufactured and Sold by JOHN G. HEWES,

Office and Warehouse, 370 WEST PRATT ST., BALTIMORE, MD.

Also, PERUVIAN GUANO, and Bones of all grades.

July-1

Washington Life Insurance Co. OF NEW YORK.



CYRUS CURTISS.....PRESIDENT.

Assets January 1, 1873.....\$3,426,203 27

Liabilities—Cash reserved for Policies,

\$2 913,102 00

Liabilities for Claims due, 70,141 74 2,983,243 74

SURPLUS.....\$442,959 53

PLAN OF BUSINESS.

Premiums required in Cash.

Dividends are non-forfeitable and are paid in Cash.

Assets are held in Cash.

Policies are paid in Cash.

The first question for a prudent man to ask, in determining the merits of an Insurance Company, should be: Is it trustworthy and responsible? The entire history of this Company has shown that its solidity is unquestioned; no imputation to the discredit of its management having ever been uttered.

DAN'L GRANT EMORY,

Manager for Maryland and District of Columbia,
my-ly 32½ ST. PAUL STREET, BALTIMORE, MD

B. T. HYNSON & SONS, Paper Hangings and Window Shades, WINDOW AWNINGS, MOSQUITO AND FLY-NETS.

Wall Papers and Window Shades of all grades and styles. Workmen sent to all parts of the country. Just received a choice assortment of different styles. Venitian Blinds made and repaired.

B. T. HYNSON & SONS.

No. 54 N. Howard St., Baltimore, Md.

VIRGINIA LANDS.

UPPER JAMES REAL ESTATE AGENCY,

BY WILLIAM HOLMAN,
CARTERSVILLE, Va.

Who offers for sale upwards of 10,000 acres of land,
lying in one of the most desirable regions of Eastern
Virginia.

Catalogues sent on application.

SMITH & CURLETT,

Steam Soap & Candle Works,

PERFUMED CHEMICAL OLIVE SOAPS,

ADAMANTINE and TALLOW CANDLES,

Cor. Holliday and Pleasant Sts.

Feb-1

BALTIMORE, MD.

THE AMERICAN FARMER.

THOS. NORRIS & SON,
MANUFACTURERS AND DEALERS IN
Agricultural Implements,
Field and Garden Seeds, Fertilizers, &c.

Would call special attention to the following first-class Machines, &c.:

WESTINGHOUSE THRESHERS AND CLEANERS.

AULTMAN & TAYLOR'S THRESHERS AND CLEANERS.

LEVER AND RAILWAY HORSE POWERS—most approved.

VAN WICKLE WHEAT FAN—Price \$37.

AMERICAN CIDER MILL AND PRESS—the best—\$40.

OUR NEW ACME PLOUGH.

Bickford & Huffman Grain Drills,

Plows, Harrows, Cultivators, Straw Cutters, Corn Shellers, and all kinds of Farming Tools. Fresh Field and Garden Seeds, Pure Ground Bone and other Fertilizers.

CUCUMBER PUMPS,

WITH PORCELAIN-LINED IRON CYLINDERS.

We are prepared to furnish, wholesale and retail, the best and cheapest Cucumber Pumps in the country, to suit all purposes, from the small cistern to the deepest well.

Send for Descriptive Circular and Price List.

THOMAS NORRIS & SON,
141 Pratt Street, Baltimore, Md.

FOR HARVEST, 1874.

W. A. WOOD'S WORLD-REOWNED

SELF RAKE REAPER,
WITH AND WITHOUT MOWING ATTACHMENT.

W. A. WOOD'S MOWING MACHINES,

Universally acknowledged as good as, if not superior to, any others in use. The above Machines have taken more FIRST PREMIUMS in this country and in Europe than any other Reaping and Mowing Machines extant. Send for Descriptive Circulars. For sale by

THOMAS NORRIS & SON, Agents,

may-ly

141 Pratt street, Baltimore, Md.

THE AMERICAN FARMER.

MACKENZIE BROS., Importers, Manufacturers and Dealers in **SADDLERY HARDWARE AND COACH FURNITURE,**

*Oils, Paints, Varnishes, Iron and Steel Carriage Bolts,
Horse-Covers, Lap Rugs and Fly Nets.*

*Saddle-Trees, Wood Stirrups, Gum-Horse Covers.
Depot and Baltimore Agents for Philadelphia
Axle Works and Henry's Patent One-Plate Springs.*

338 W. BALTIMORE STREET,

dec-1y

Baltimore, Maryland.

ESTABLISHED 1835.

GEORGE W. WEBB, GOLDSMITH & JEWELLER,

S. E. Corner Light and Baltimore Streets,

IMPORTER AND DEALER IN

**FINE WATCHES, RICH JEWELRY,
STERLING SILVER AND PLATED WARE.**

*Every attention paid to neatness and durability in the manufacture and repair of Jewelry. Fine Watches
repaired by experienced workmen. Hair Braiding in all its varieties. Orders attended to with despatch.* dec-1y

WE HAVE HESITATED ABOUT BREAKING THE MARKET, BUT THERE IS NO HELP
FOR IT. WE HAVE OVER \$100,000 IN MEN'S AND BOY'S

CLOTHING AND GOODS FOR MEN'S WEAR,

*And we cannot afford to carry them. Good times are coming, but we cannot sell Winter
Clothing in Summer time, any more than people can wear Summer Clothing in
Winter time; and besides, we will not allow our stock to become old.*

J. H. SMITH & CO.

MARBLE HALL BUILDINGS, N. E. COR.

dec-1y

BALTIMORE AND FREDERICK STREETS.

STEAM MARBLE WORKS. BEVAN & SONS,

Nc. 70 HOWARD ST., NEAR SARATOGA.

Will call attention to their fine collection of MONU-
MENTS, TABLETS, &c.; GRAVESTONES FOR CEM-
ETERIES; also a varied assortment of MARBLE MAN-
TLES, and are prepared to execute all kinds of Marble
Work for building.

PRINTING, FOR EVERY BUSINESS.
AMERICAN FARMER OFFICE.

The GERRISH CABINET ORGAN,

In Imperial cases, with flexible sliding covers,
New style, and Superior in Tone and Touch to all other
Organs. At very low prices. Send for Circulars and
Price list to JAMES M. DEEMS, AGENT, corner Balti-
more and Paca streets, over the People's Bank, Balti-
more, Md.

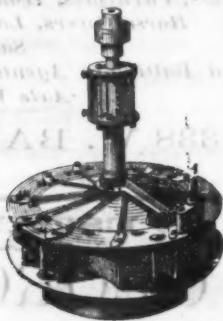
SCALES.—Every farmer should have a pair of scales.
We can furnish them to weigh a quarter of an
ounce up to the largest hay wagon, on very liberal terms,
at the American Farmer office.

**THE BAB COCK
AND WILCOX
PATENT SAFETY STEAM
BOILERS.**
**LEFFEL'S
AMERICAN
DOUBLE
TURBINE
WATER WHEEL.**
**PORTABLE AND STATIONARY
STEAM
ENGINES & BOILERS**
SAW & GRIST MILLS
**MILL GEARING, SHAFTING, PULLEYS
& HANGERS, MANUFACTURED BY**
POOLE & HUNT,
Send for Circulars { BALTIMORE, MD.

LEFFEL'S
AMERICAN

Double Turbine Water Wheel

Power Pledged Equal to
any Overshot.



OVER 6,000

NOW IN USE.

Oct-ly

TREES AND PLANTS.

Rosebank Nurseries,

Govanstown, Balt. co., Md.

We invite the attention of Planters and Amateur Cultivators to our complete stock of the following:
PEARS, Standard and Dwarf.

APPLES, Standard and Dwarf.

CHERRIES, Standard and Dwarf.

PEACHES, PLUMS and GRAPE VINES, together with other SMALL FRUITS of popular kinds.

ORNAMENTAL TREES, EVERGREENS and SHRUBS, with ROSES in great variety. A large stock of choice GERANIUMS, VERBENAS, and other bedding-out plants.

75 to 100,000 two and three year old OSAGE ORANGE HEDGE PLANTS.

ORDERS BY MAIL promptly attended to.
Catalogues forwarded on application.

sep-ly

W. D. BRACKENRIDGE.

RHODODENDRONS,
Camellias, Chinese Azaleas and Hardy Evergreens,
Deciduous Trees and Shrubs,
with Roses.

For Catalogues apply to

S. B. PARSONS & SONS,

Nov-7t

Flushing, N. Y.

Guano! Guano!

C. W. BURGESS & SON,
166 North Gay Street, Baltimore,
DEALERS IN
MEXICAN AND PERUVIAN GUANO,
PHOSPHATES, &c., and
FERTILIZERS OF ALL KINDS.

Mexican Guano Specialty,

Which they offer for sale at the lowest market rates. From the satisfaction expressed as to the quality of the Fertilizers furnished by us, we feel confident that we can give the purchaser the full value of his money. Give us a call before purchasing.

Country Produce bought and sold.

Also, GROCERIES OF ALL KINDS.

feb-ly

THE AMERICAN FARMER.

JOHN C. DURBOROW,
GENERAL AGENT FOR
THE KIRBY MOWERS AND REAPERS,

55 -

Light street,
BALTIMORE,
MARYLAND.

55

Light street,
BALTIMORE,
MARYLAND.



The KIRBY COMBINED REAPER AND MOWER with BALTIMORE SELF-RAKE received FIRST PREMIUM at Carroll County, Frederick County and Montgomery County, Md., FAIRS, October, 1873. The BURDICK INDEPENDENT REAPER with BALTIMORE SELF-RAKE received FIRST PREMIUM and DIPLOMA at Maryland State Fair, 1873. The KIRBY TWO-WHEEL MOWER was awarded the FIRST PREMIUM at Carroll County, Frederick County and Montgomery County, Md., Fairs; and also, at Leesburg, Va., Fair, 1873.

SIMPLE, STRONG AND DURABLE.

POSITIVELY NO SIDE DRAUGHT. NO WEIGHT ON THE HORSE'S NECK. Extras and repairs constantly on hand. Send for Circular and Price-List. Also, DEALER IN ALL KINDS OF

Agricultural Implements, Cucumber Pumps, Seeds, Fertilizers, &c.

JOHN C. DURBOROW,

dec-ly

55 Light Street, near Pratt, Baltimore, Md.

FARMERS SAVINGS BANK!!
KNICKERBOCKER
LIFE INSURANCE CO.
OF NEW YORK.

ASSETS \$8,300,000.

ALL KINDS OF POLICIES ISSUED.

SAVINGS BANK INSURANCE A SPECIALTY.

Every Policy shows its cash surrender value at the end of the First, Second, Third and every year of the continuance of the Policy.

E X A M P L E .

ENDOWMENT—At 30, \$1000 payable at 40, or at previous death. Premium \$88.23. Cash surrender value at end of first year, \$77.74; at end of second, \$162.15; end of fifth year, \$440.02, or \$1.18 LESS than the amount paid in.

Payable at Death or 75—Age 40, \$1000. Premium \$34.01. Cash surrender value at end of second year, \$18; at end of third year, \$35.56.

We respectfully call the attention of the public to the above card, and can assure them that no other Company offers so great an inducement for the investment of their money where so large a return is guaranteed, and brings LIFE INSURANCE WITHIN THE REACH OF ALL.

Parties desiring information or insurance in this Company will address or call upon the undersigned, who will take pleasure in furnishing it.

nov-ly

WM. E. BROWN & CO., Gen'l Agents, 22 Second St., Baltimore.

THE AMERICAN FARMER.

Seasonable Agricultural Implements & Machinery

R. SINCLAIR & CO.,

62 LIGHT ST., BALTIMORE, MD.

MANUFACTURERS OF ALL KINDS OF

FARM MACHINERY

AND

Agricultural Implements

AND GROWERS AND IMPORTERS OF

Carden and Field Seeds, &c.,

OFFER FOR SALE A LARGE STOCK OF

LABOR-SAVING IMPLEMENTS AND MACHINERY.

Including in part, as particularly suitable for the coming Harvest,

The "Advance Mower" or "Improved Monitor,"

The simplest, strongest and most efficient Mower in the country.

The "New Yorker" Self-Rake Reaper and Mower and Reaper only.

Reapers of the most approved and Improved Patterns always on hand.

ITHICA SULKY SELF-DISCHARGING HAY AND GRAIN RAKE, the best in use
"PHILADELPHIA" HAND AND HORSE MOWERS,

ROGERS' PATENT HARPOON HORSE HAY RAKE.

"BUCKEYE" SULKY CULTIVATOR, for Corn, Tobacco and Cotton.

SINCLAIR'S SOUTHERN IRON BRACE GRAIN CRADLES.

HAY TEDDERS, most approved patterns.

THOMAS' SMOOTHING HARROWS, for cultivating Corn, &c.

Also an unusually large and varied stock of well known and thoroughly tested MACHINES and IMPLEMENTS, which we guarantee to give satisfaction to Farmers and Planters.

R. SINCLAIR & CO.,

may-ly. 62 Light street, Baltimore.



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Established 1856.

LARMOUR & CO.

DEALERS IN

GOLD AND SILVER WATCHES,

RICH JEWELRY, SOLID SILVER WARE,
TRIPLE-PLATED WARE, CLOCKS, BRONZES, &c.

Agents for the American Watch Co. of Waltham.

In our stock can be found WATCHES from the most celebrated makers of EUROPE as well as from the widely known AMERICAN factories; JEWELRY of every description, in

DIAMONDS, PEARLS, CAMEOS, &c.

SOLID SILVER WARE of chastest styles, suitable for Wedding Presents and for Prizes for Agricultural and Horticultural Societies; **SILVER PLATED WARE** of the best manufacture; **Fine Table Cutlery, &c.**

Also Agents for the celebrated "DIAMOND" SPECTACLES and EYEGLASSES, the most perfect in the world.

(Sign of the Big Clock.)

LARMOUR & CO.

195 West Baltimore Street, Baltimore, Md.

WATCHES and JEWELRY repaired in the best manner and warranted. may-ly



We will purchase and have carefully shipped, by whatever mode of transportation may be designated:

FERTILIZERS of every description sold in this market—and there is, probably, no other city in the Union which offers better facilities for this purpose. We will buy, and deliver from the Peruvian Agent's Warehouses, whenever the order is sufficiently large to warrant it,

PERUVIAN GUANO.

Also the various **PHOSPHATIC GUANOS** imported into this port; **BONE DUST** from the best manufactures of this vicinity or the cheaper kinds from a distance, as may be ordered by the purchaser;

Land Master, Oil Vitriol, and all Chemicals Required

In the manufacture of **HOME MANURES** or **SUPERPHOSPHATES**, from the most reliable factories.

FRUIT and **ORNAMENTAL TREES, SHRUBBERY, Field, Garden and Flower SEEDS.**

All kinds of **AGRICULTURAL IMPLEMENTS** and **MACHINERY** at manufacturers' prices. Likewise,

Cattle, Horses, Sheep, Pigs, Poultry, &c.

Of the improved breeds. In this vicinity, in some particular kinds of stock, a better selection can be made than elsewhere, and special attention will be given to buying and forwarding such animals as may be ordered.

TERMS CASH (or its equivalent.)

Sam'l Sands & Son,

No. 9 North St., near Baltimore St., Baltimore, Md.

THE NEW LIGHT-RUNNING

"HOWE,"



SEWING MACHINE

HAS JUST BEEN AWARDED THE
HIGHEST PREMIUM!

AT THE

Vienna Exposition,

FOR ITS SUPERIOR SEWING & STITCHING!

GENERAL OFFICE FOR THE STATES OF

Maryland, Virginia, N. Carolina, S. Carolina:

38 N. Charles St.

BALTIMORE, MARYLAND.

AGENTS WANTED in every County of the above States.

Liberal inducements and large pay to energetic men.

Wagons furnished and no Capital required.

Machines Sold on Easy Terms.